

THE CONTRACT JOURNAL

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THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

No. 4,257 82nd YEAR

THURSDAY, JANUARY 26, 1961

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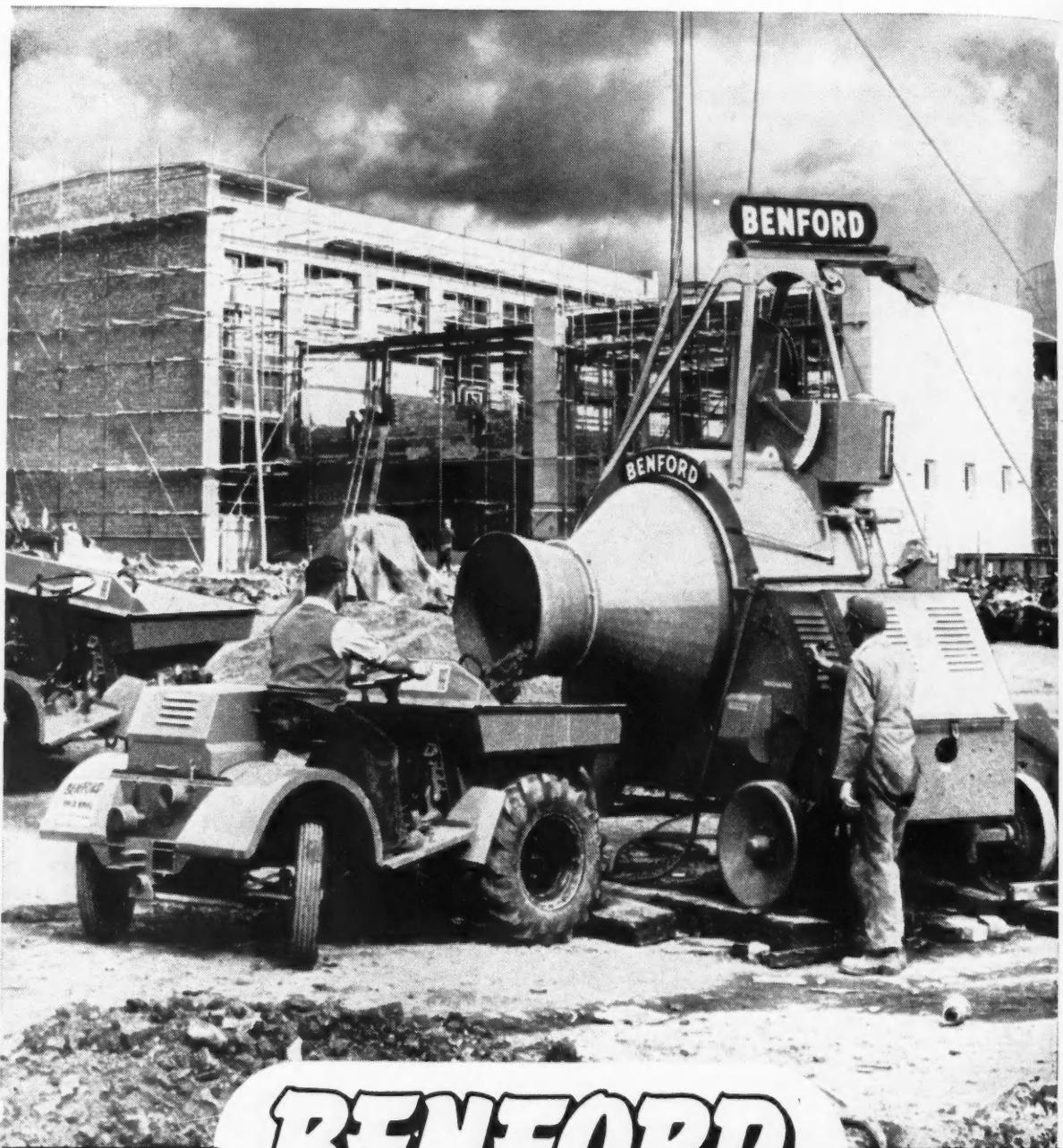
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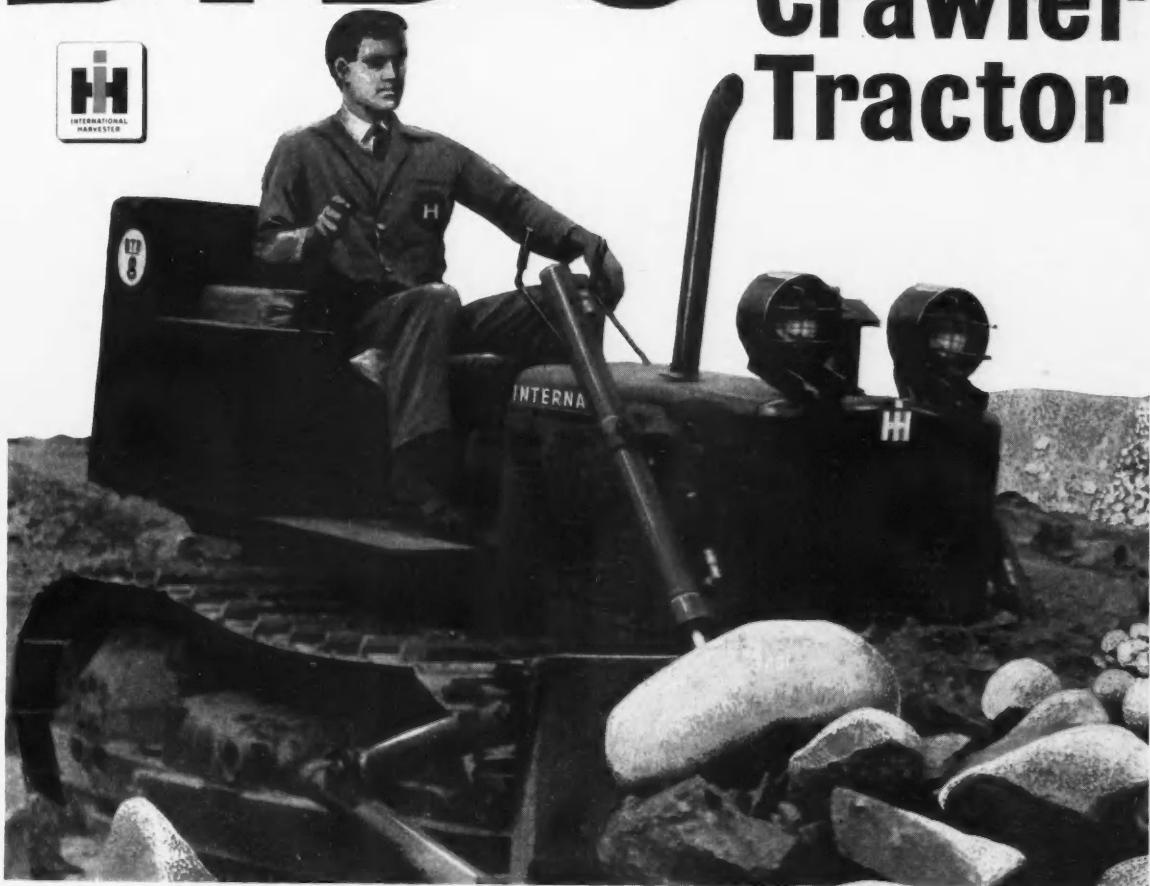


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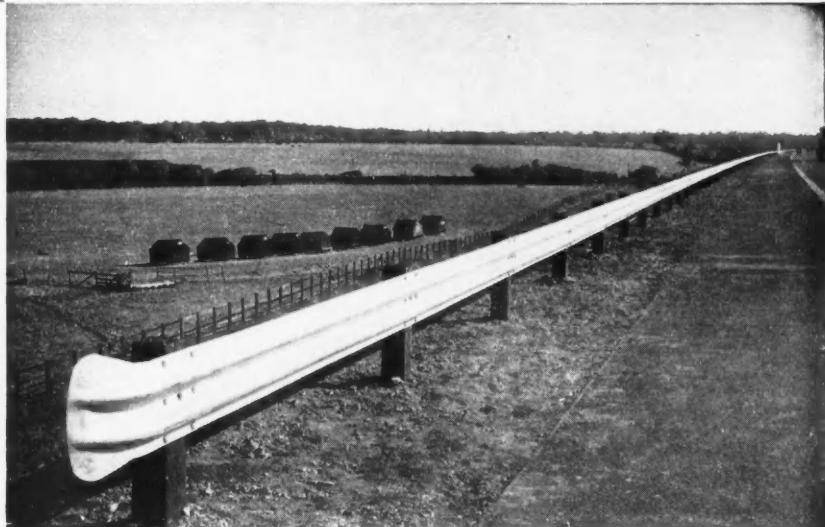
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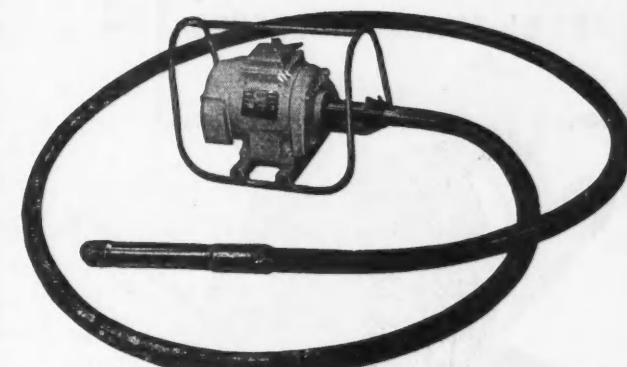
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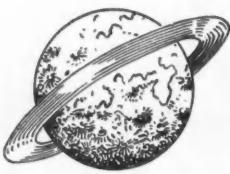
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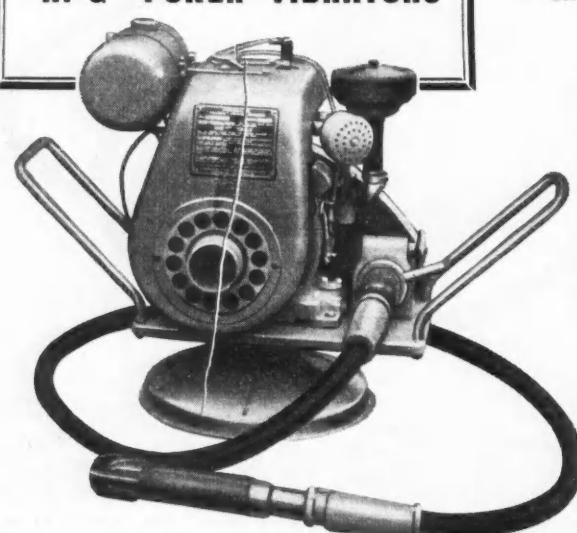
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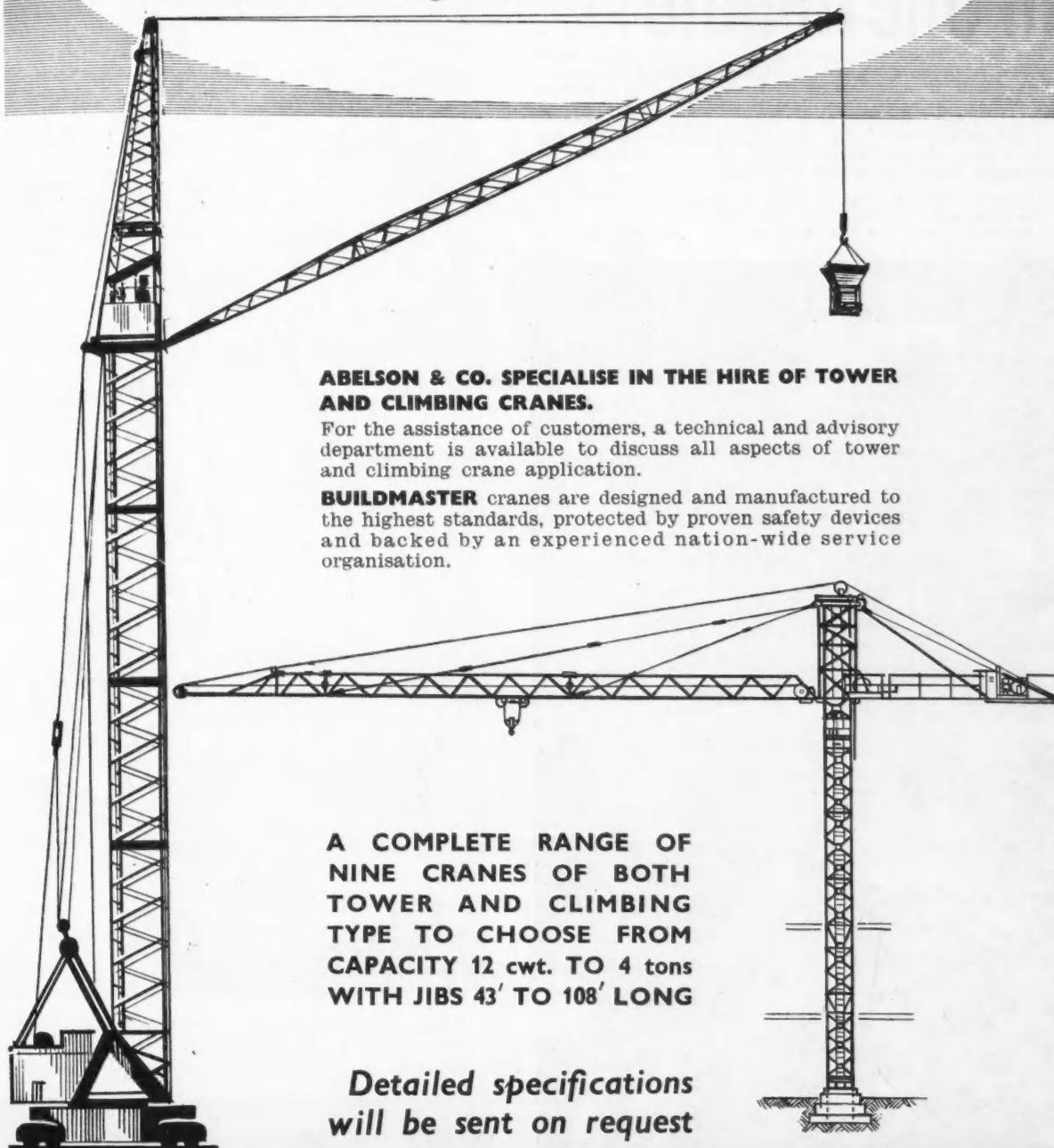
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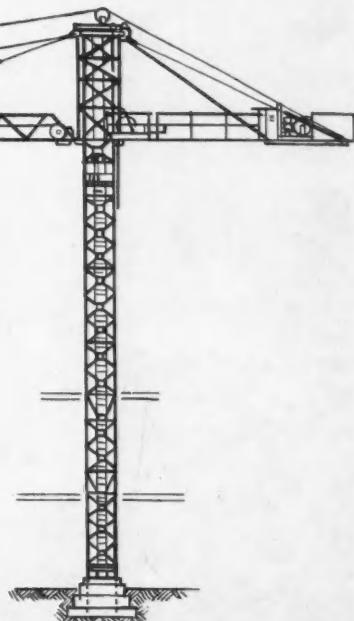
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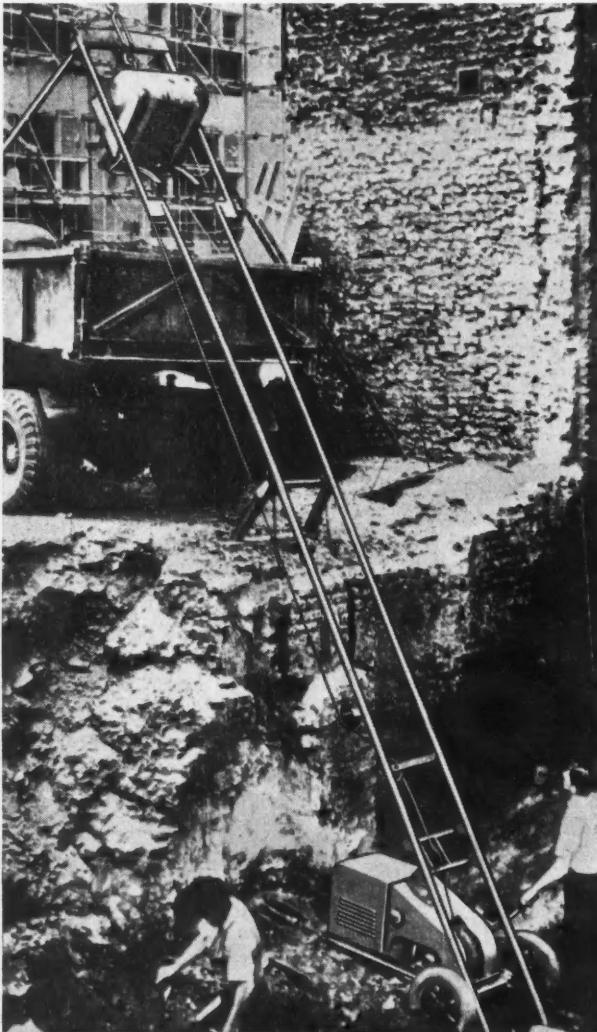
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* Tipping height 29ft with Standard Machine. Lifting speed 29ft in 17 seconds.

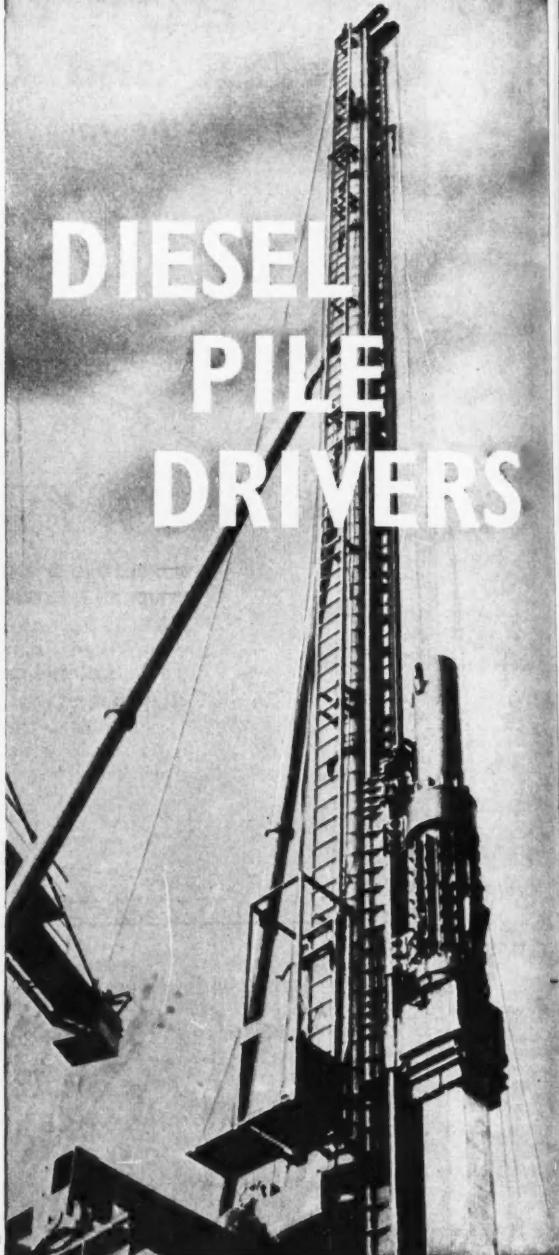
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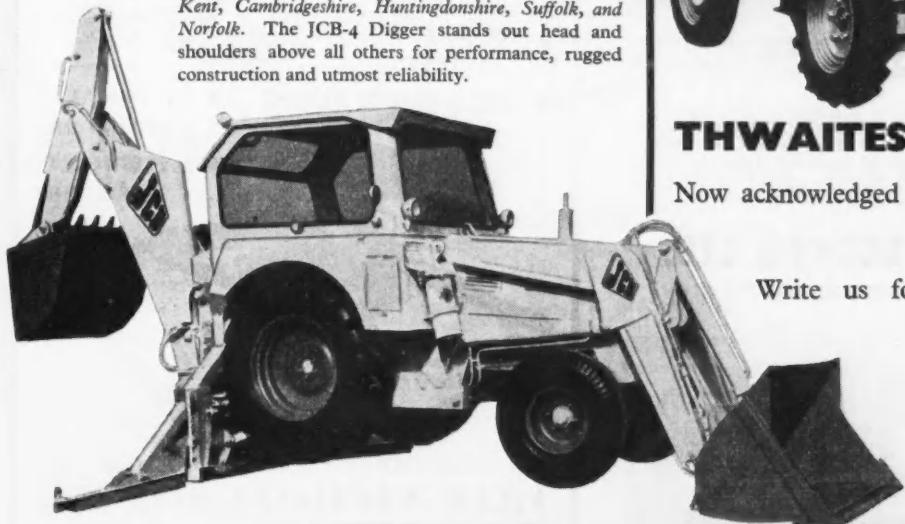
SUPPLEMENT

397



4

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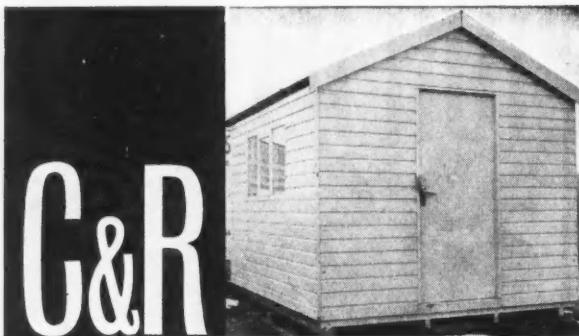
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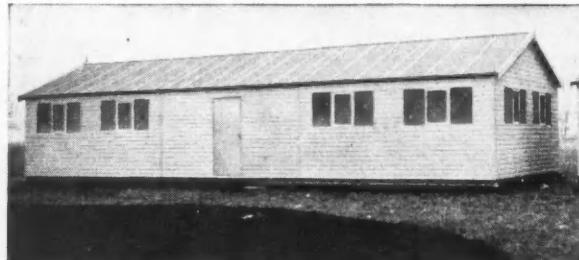
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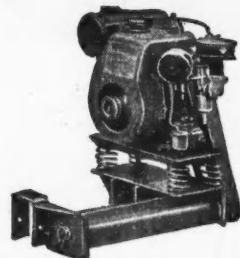
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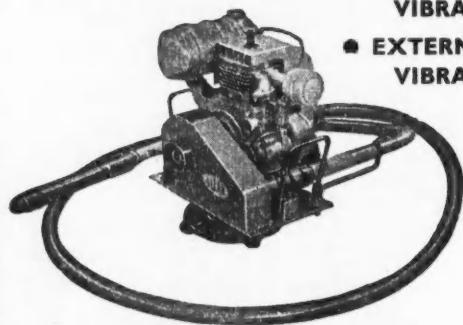
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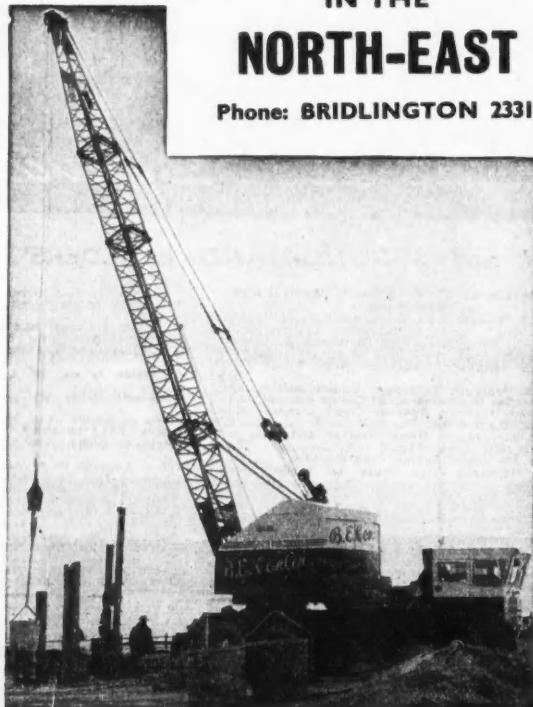
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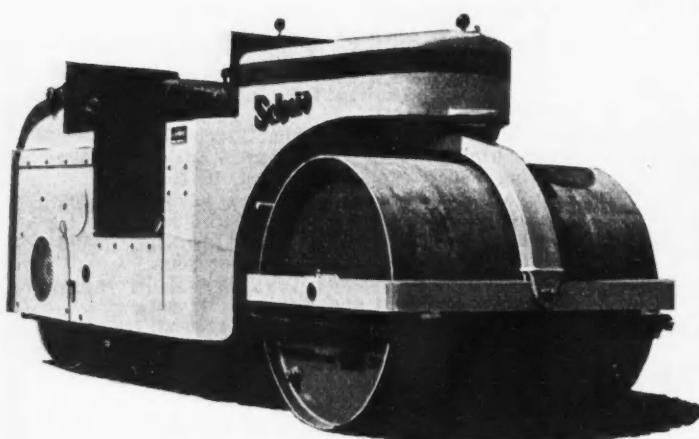
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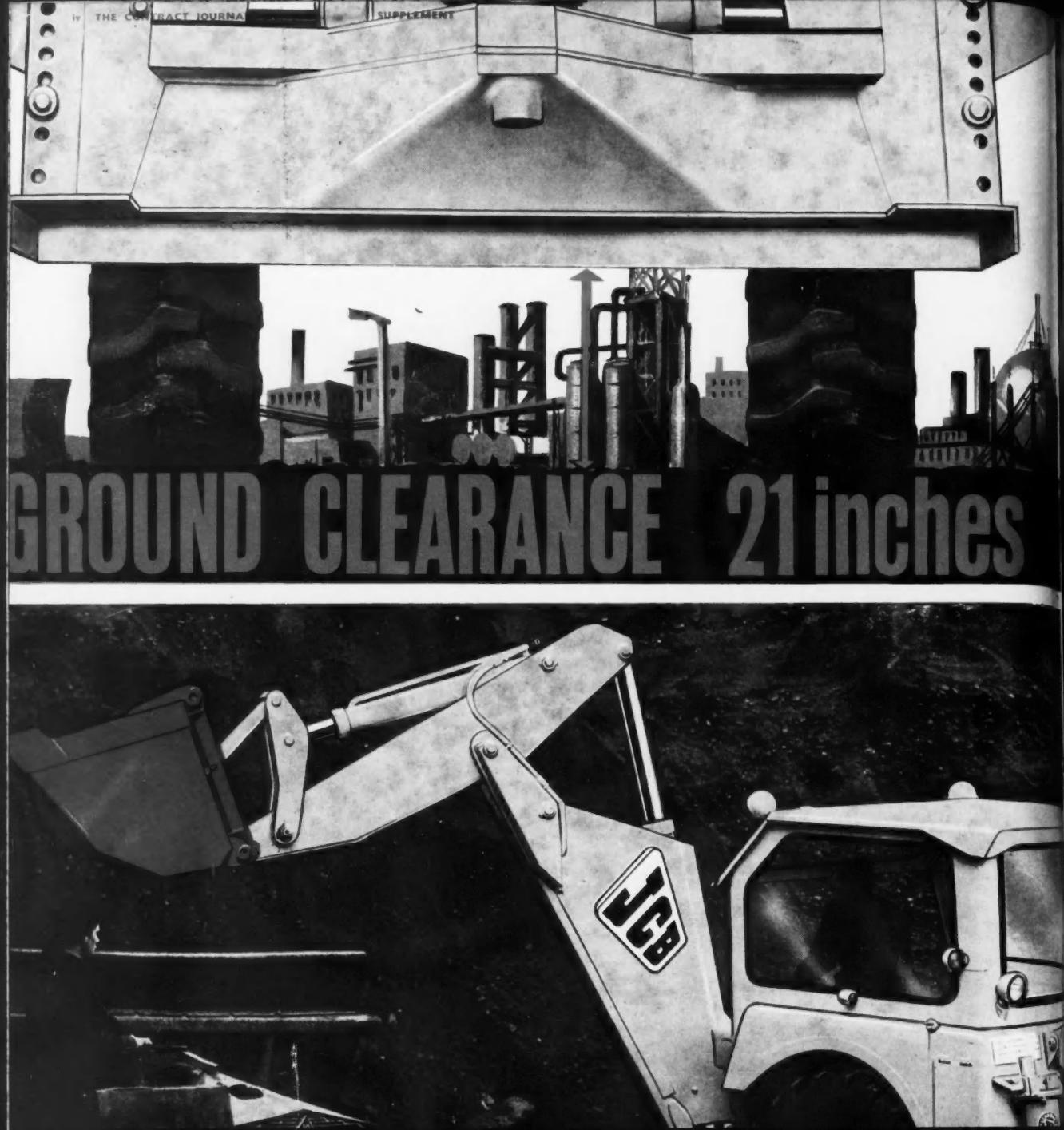


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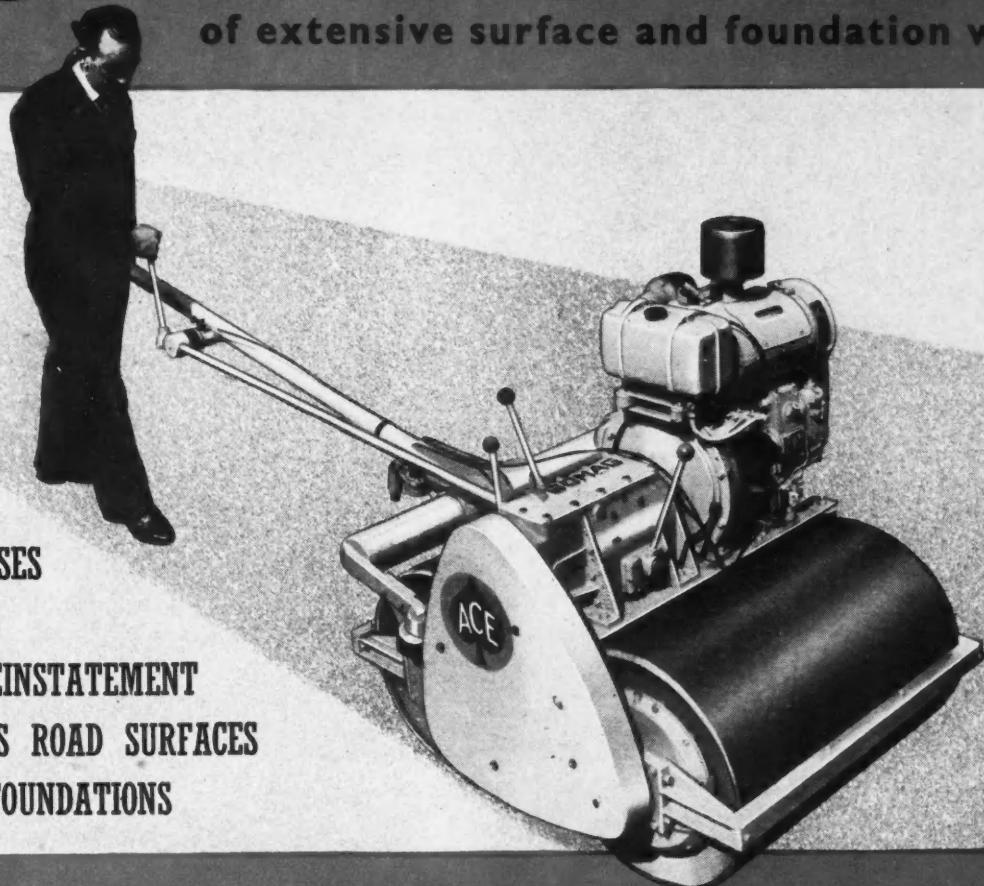
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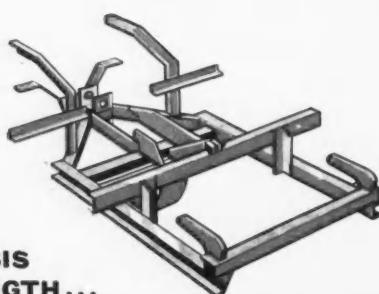
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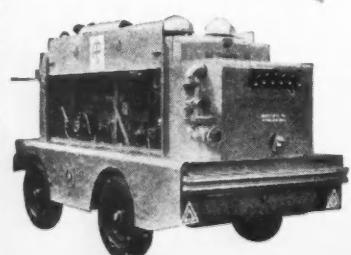
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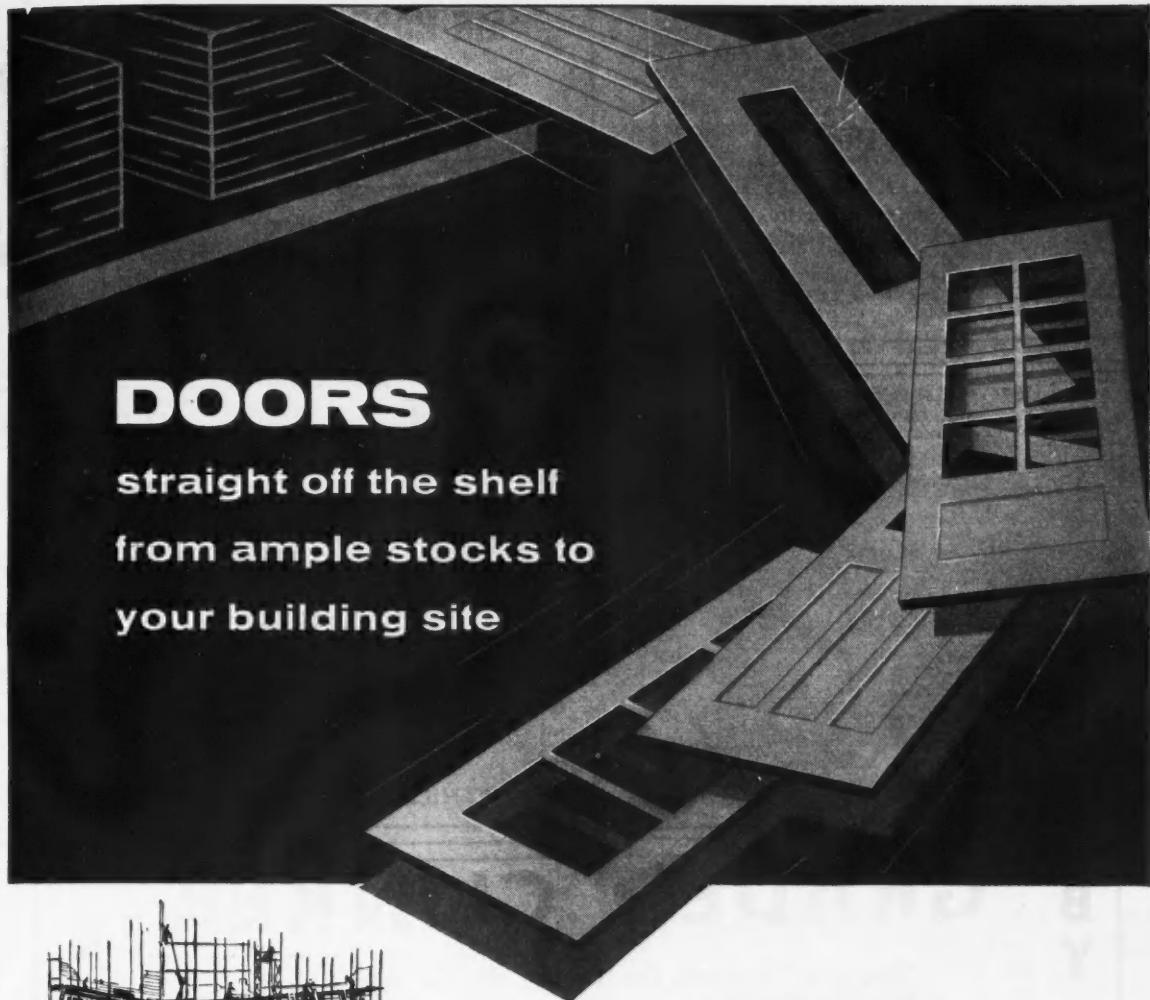
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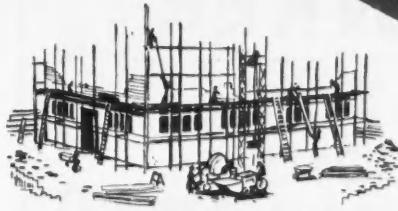
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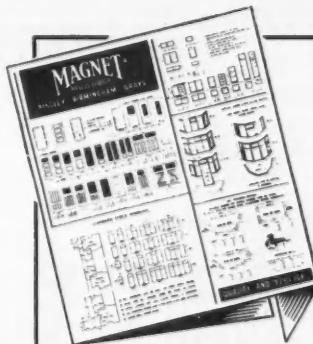
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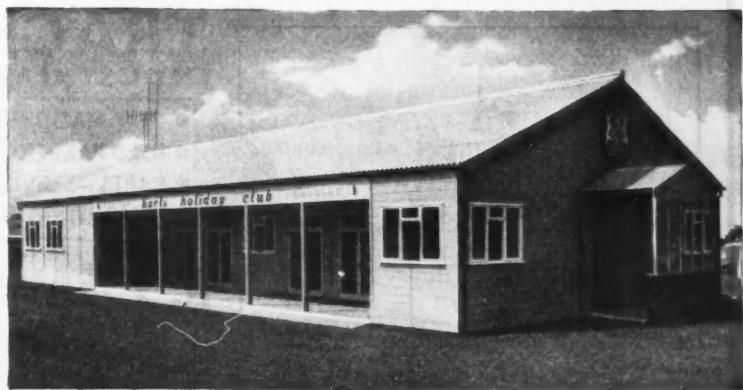


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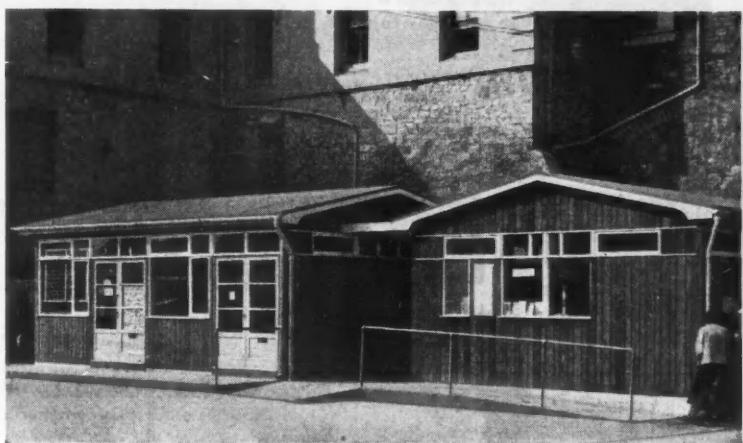
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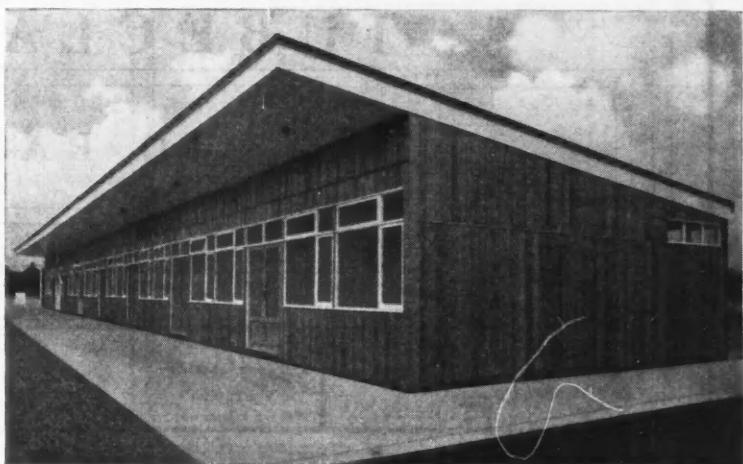
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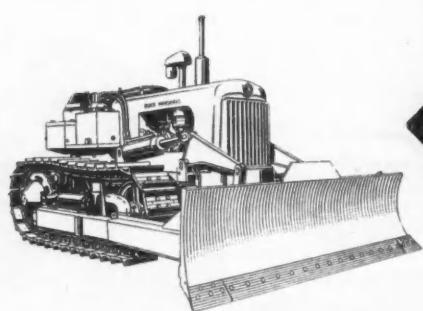
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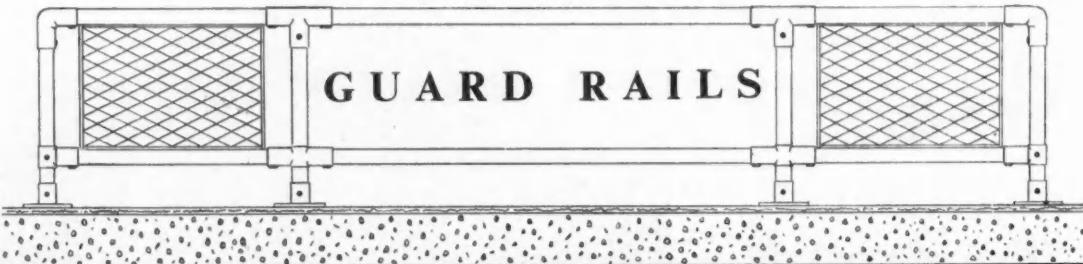
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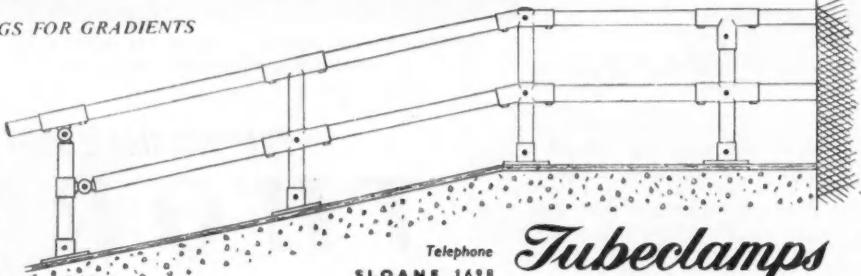


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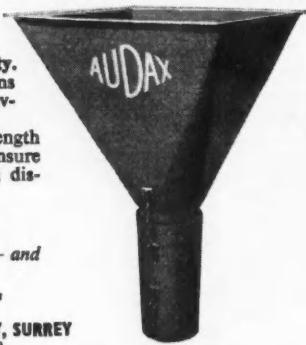
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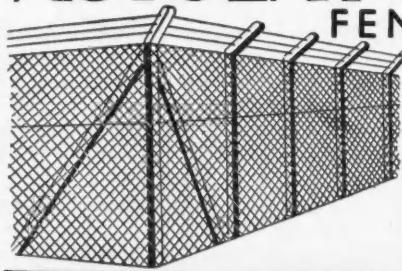
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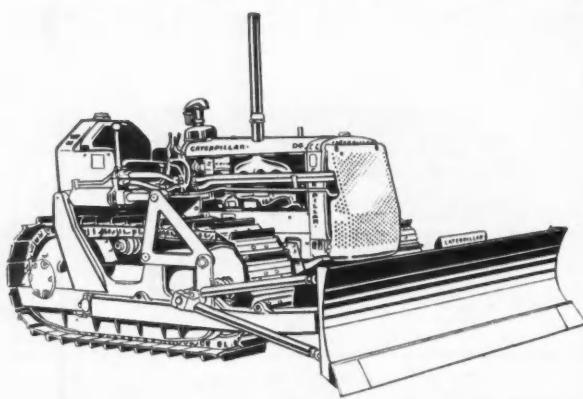
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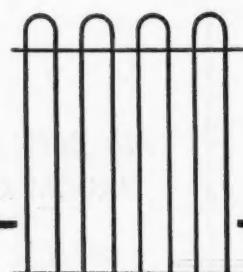
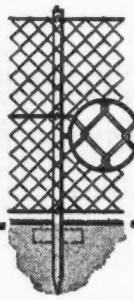
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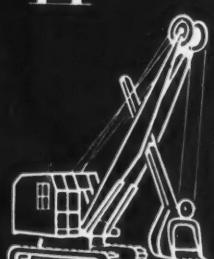
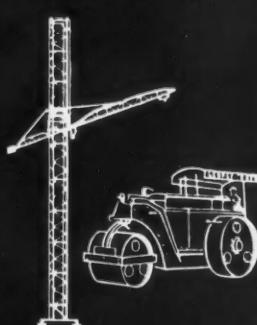
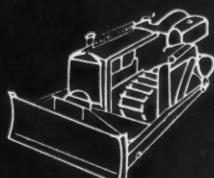
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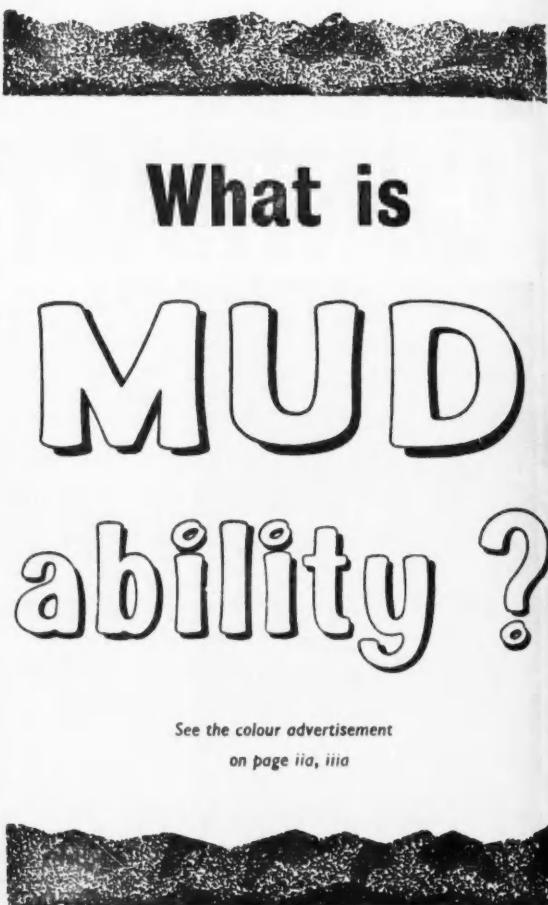
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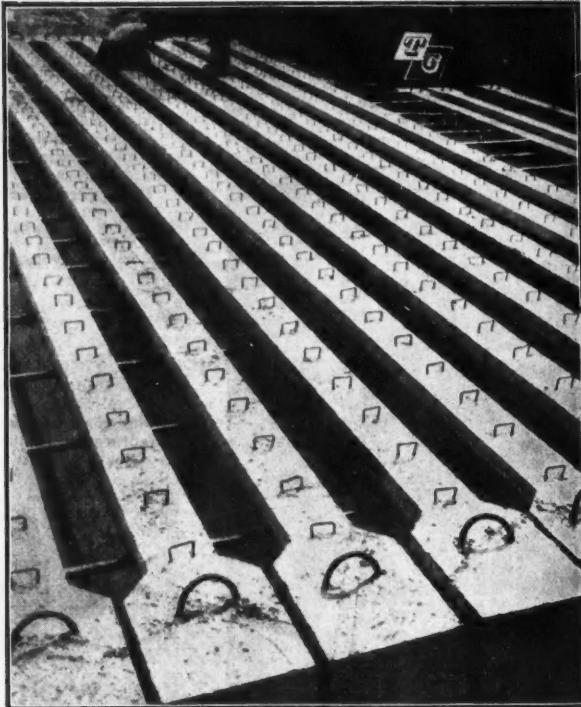
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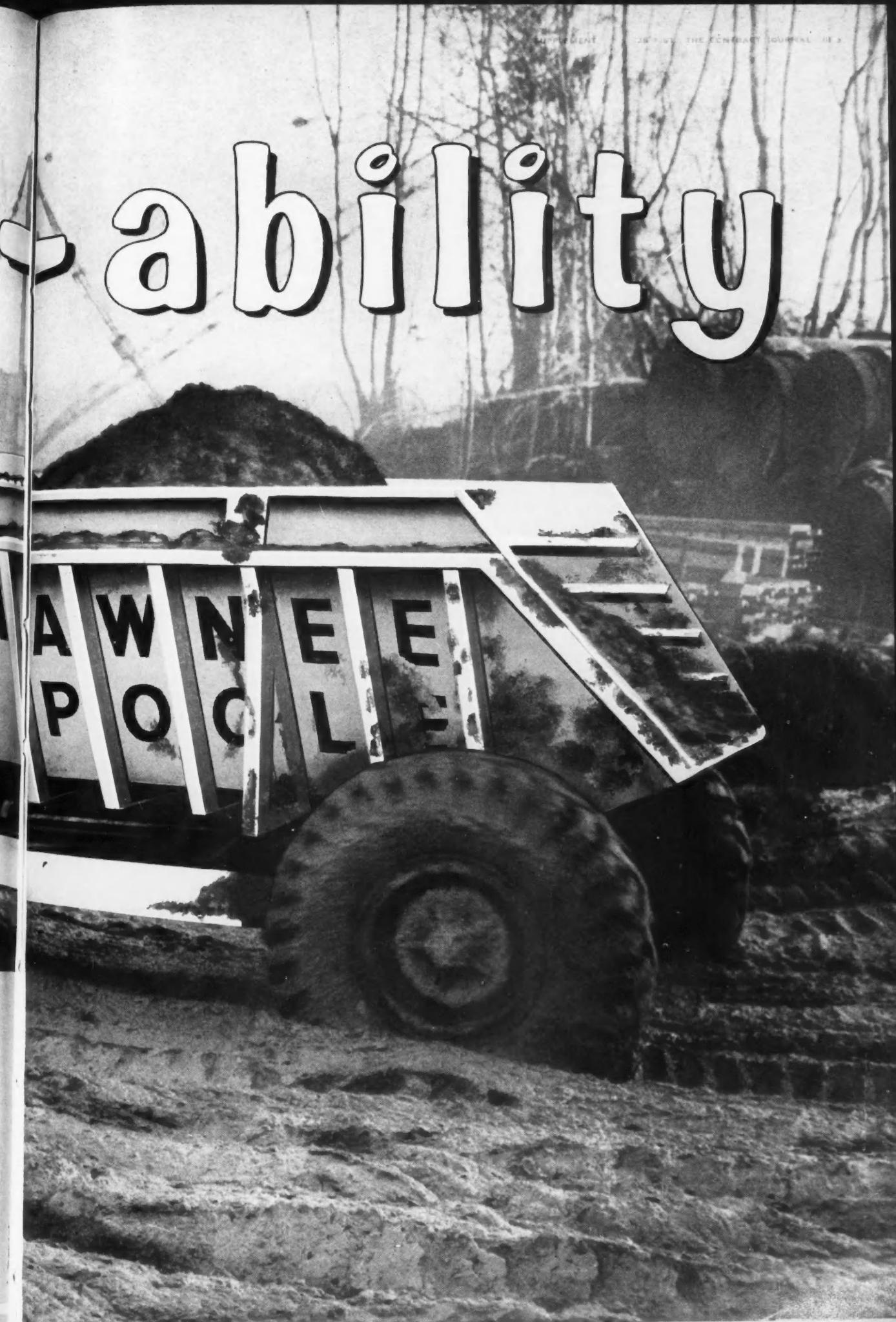


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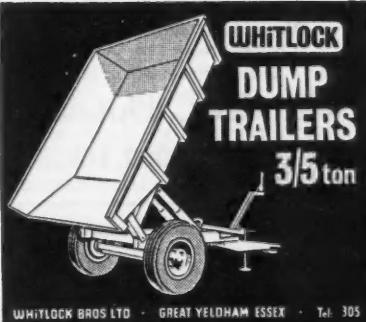
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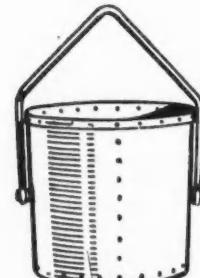
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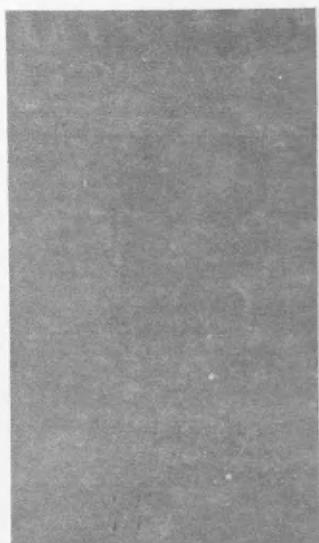
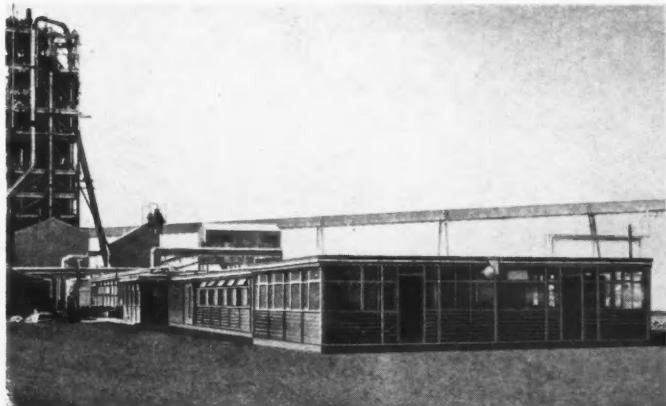
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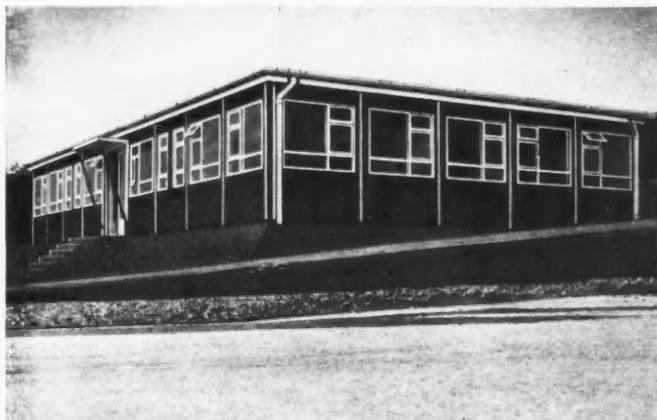
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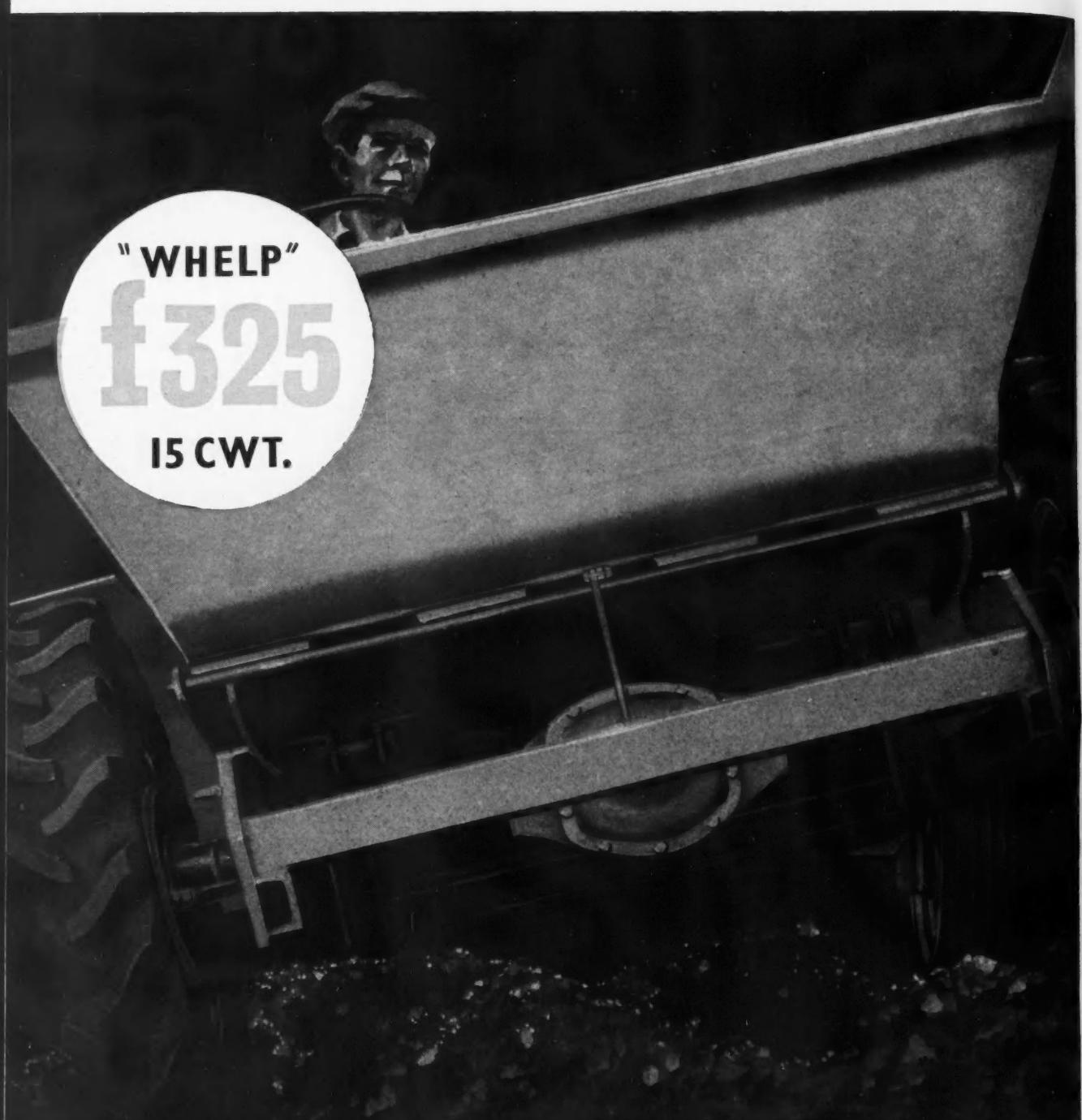
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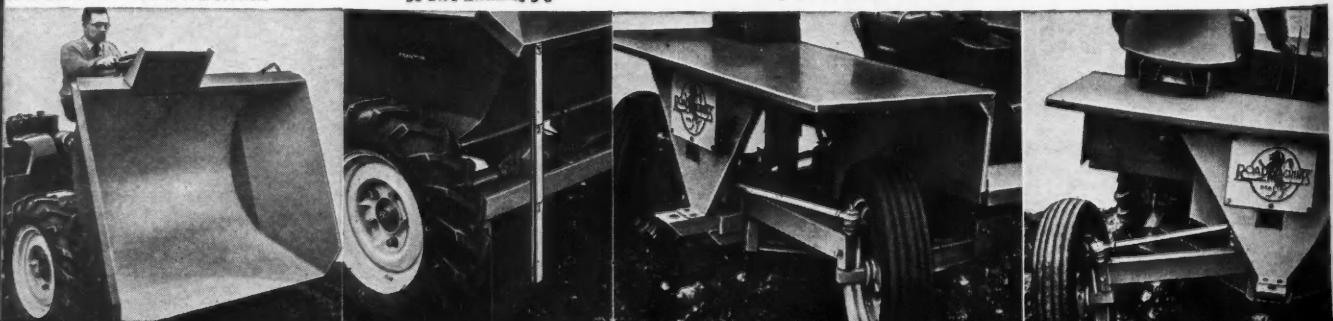
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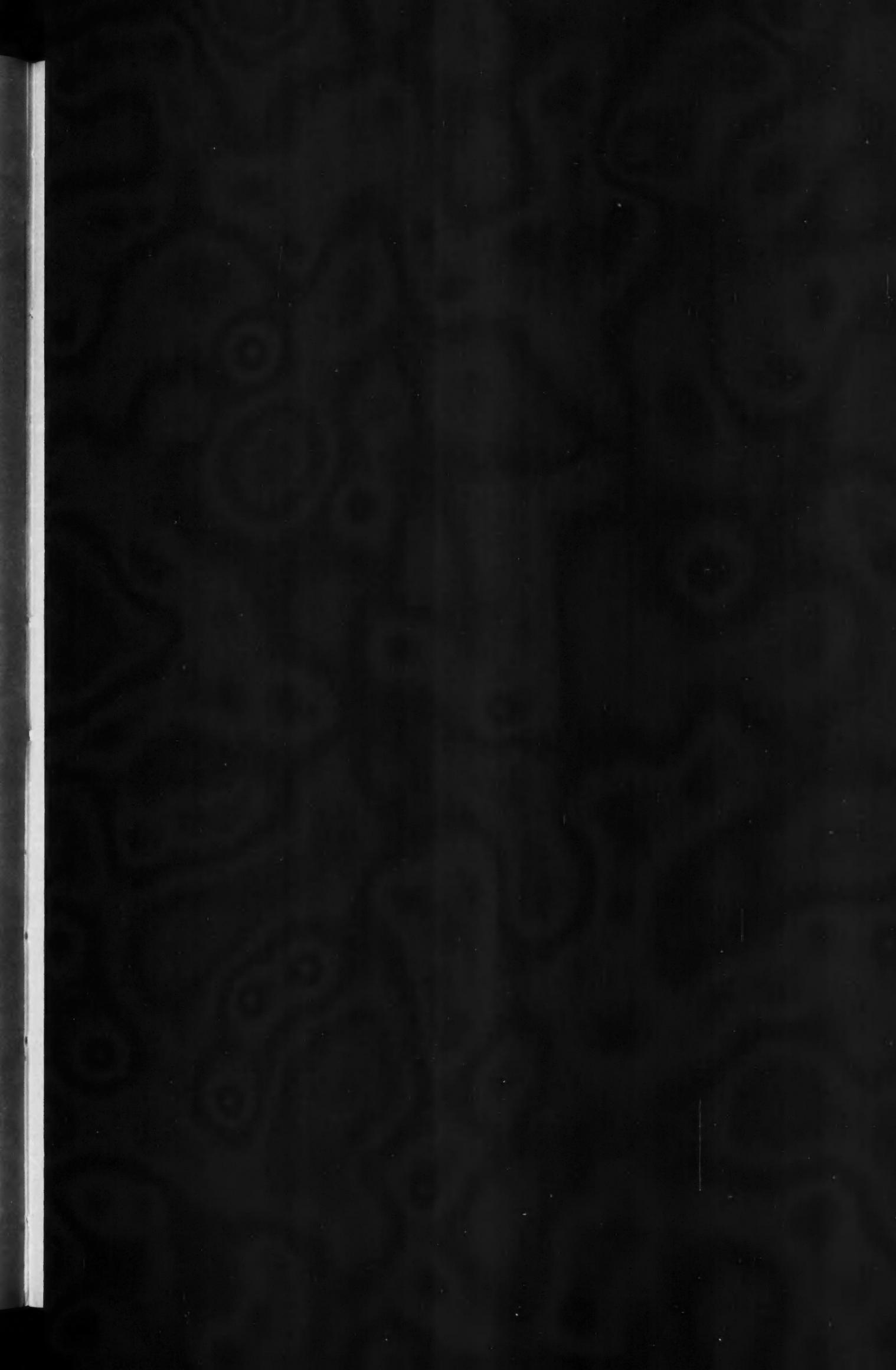
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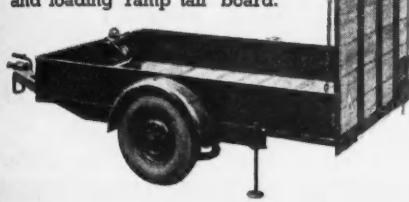
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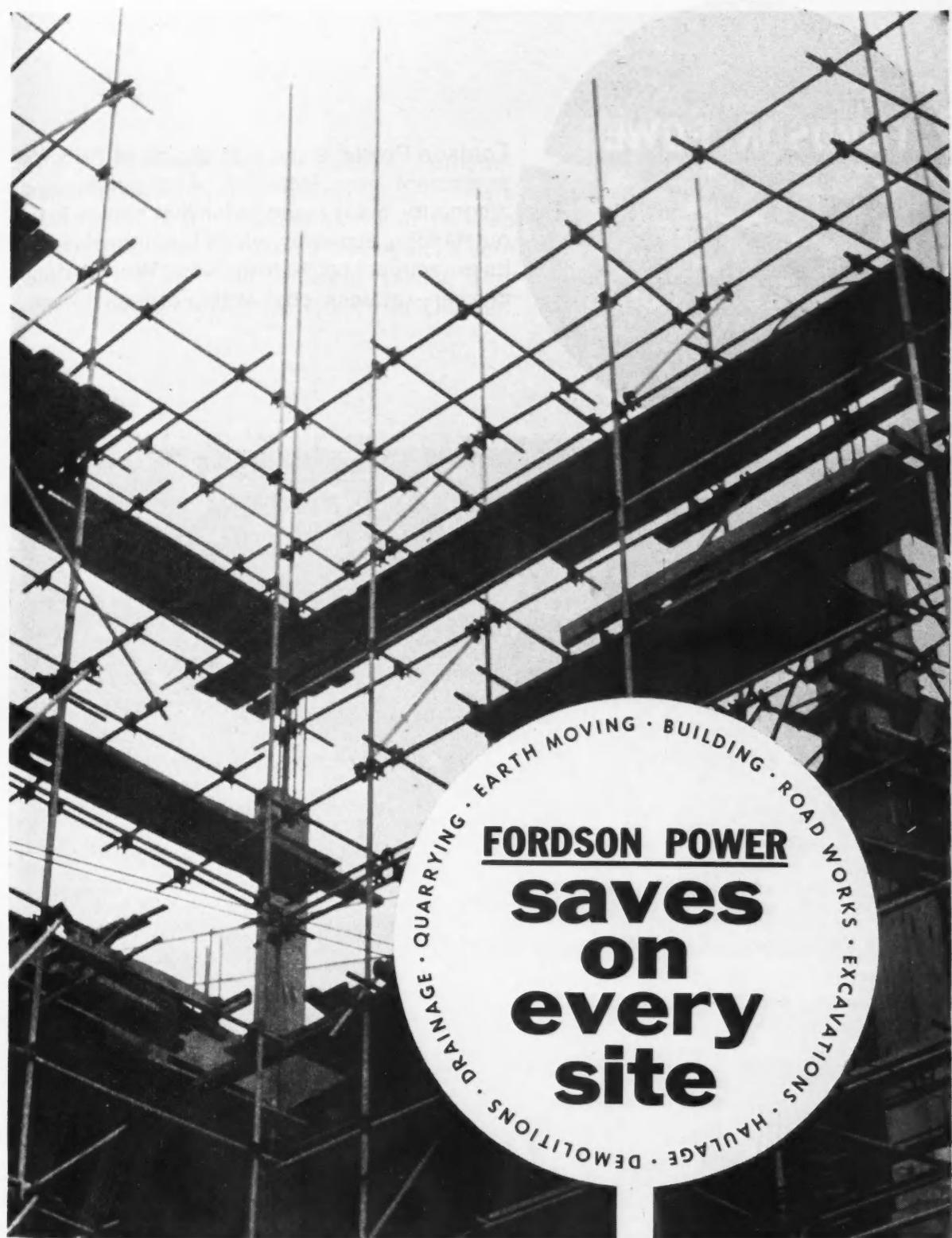
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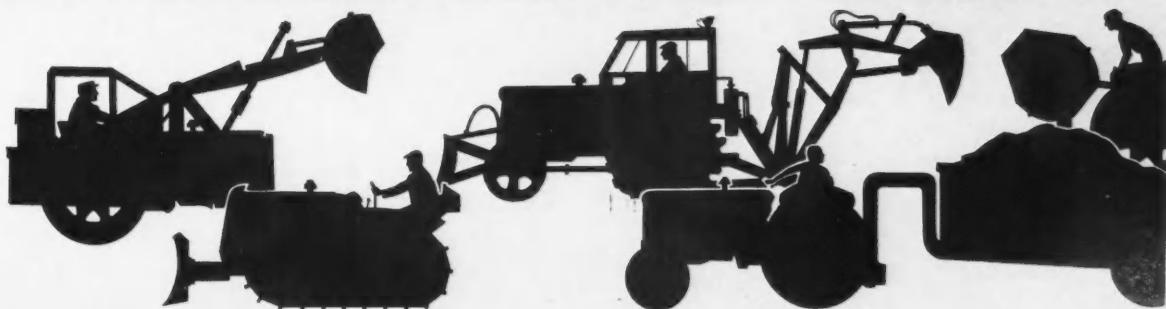
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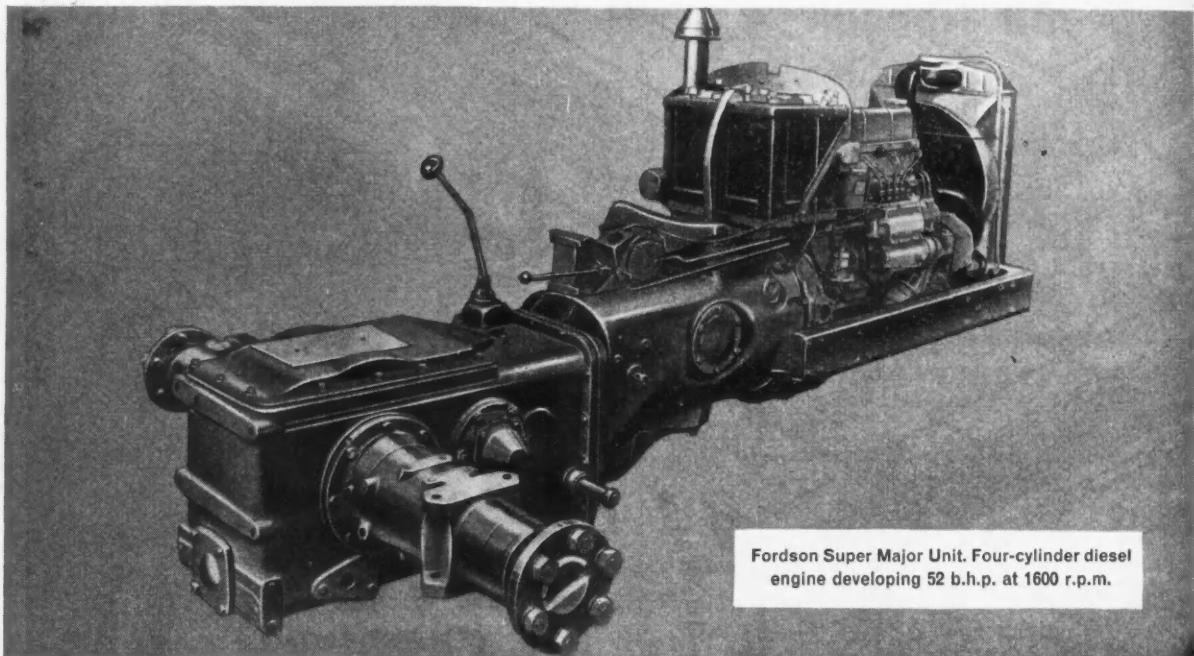


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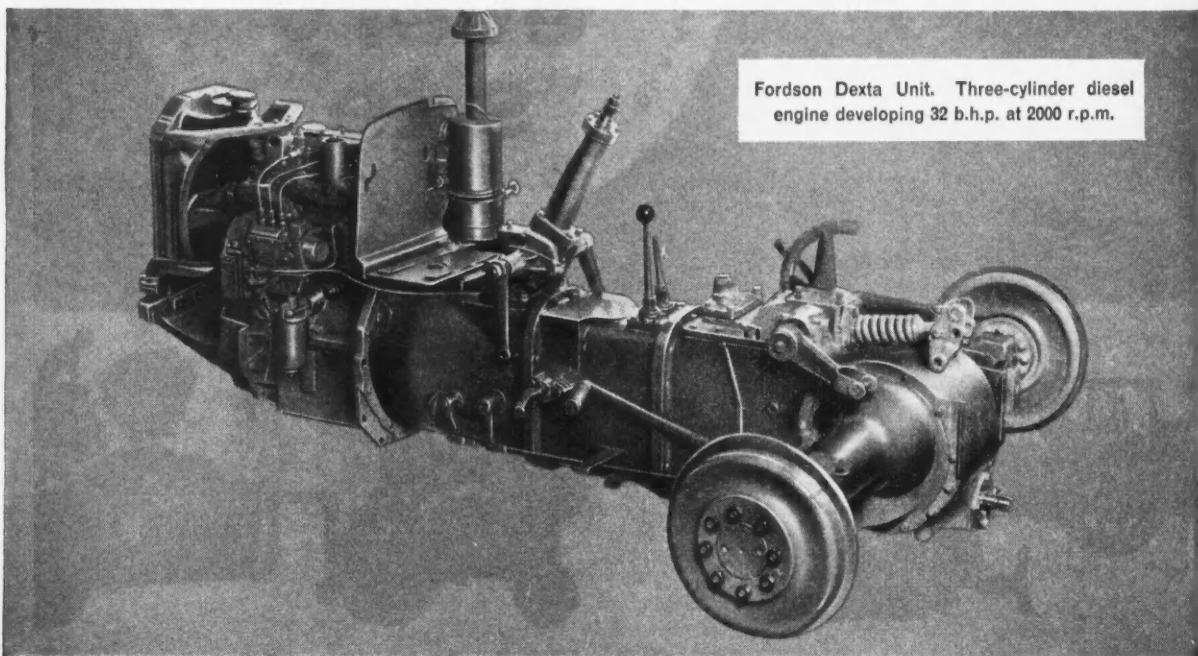




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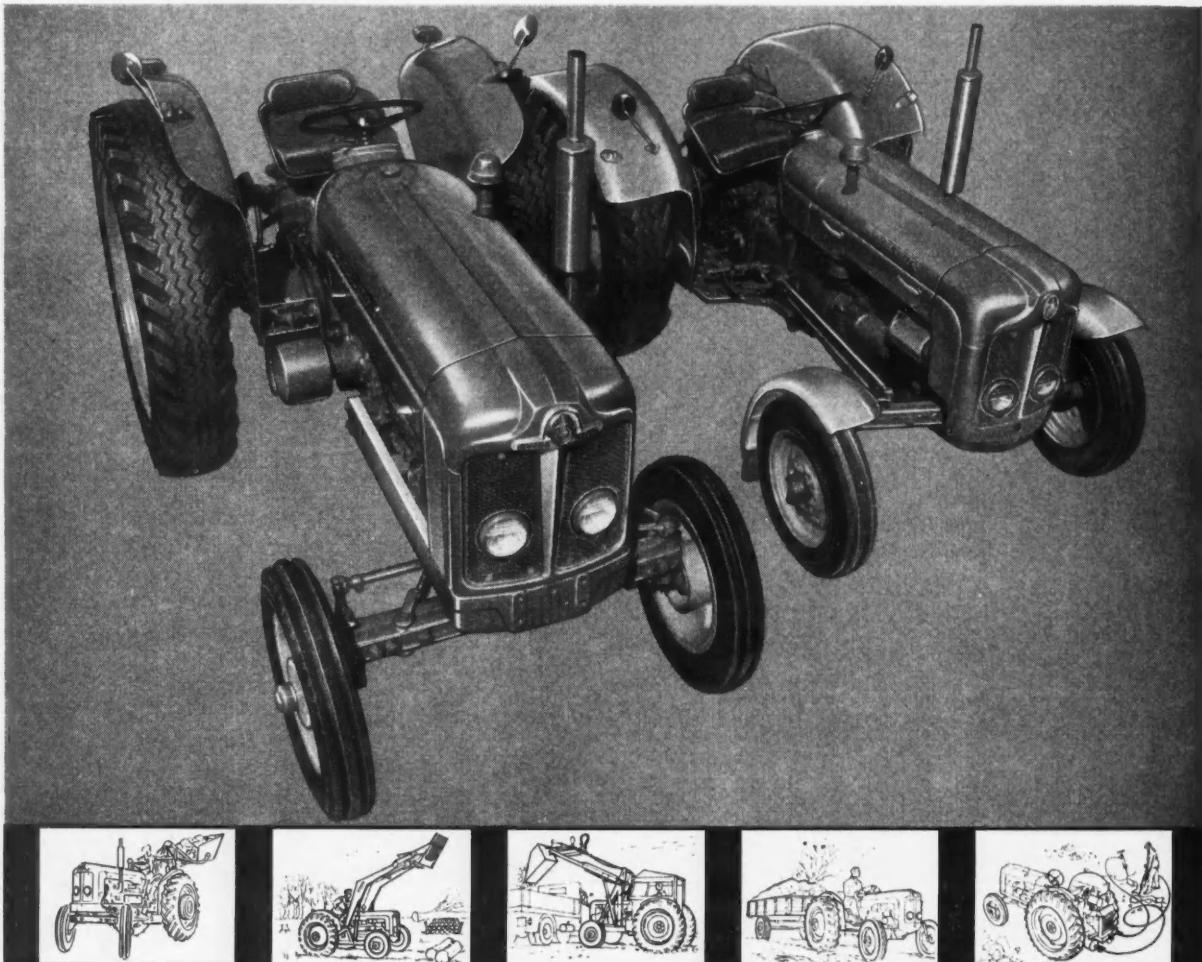
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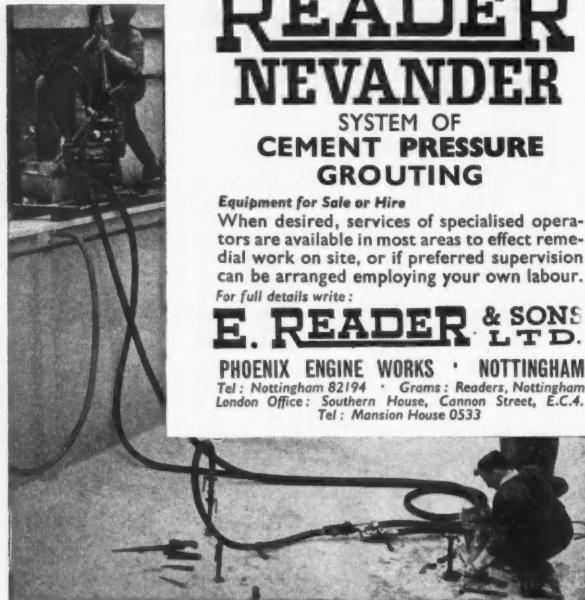
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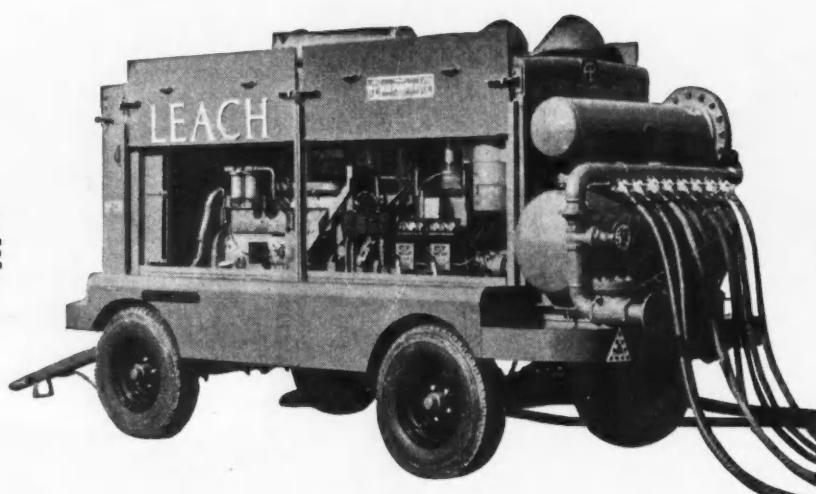
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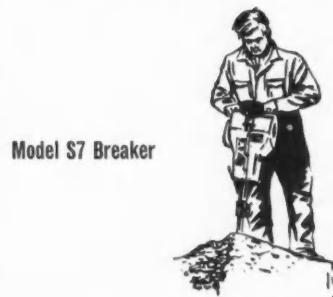
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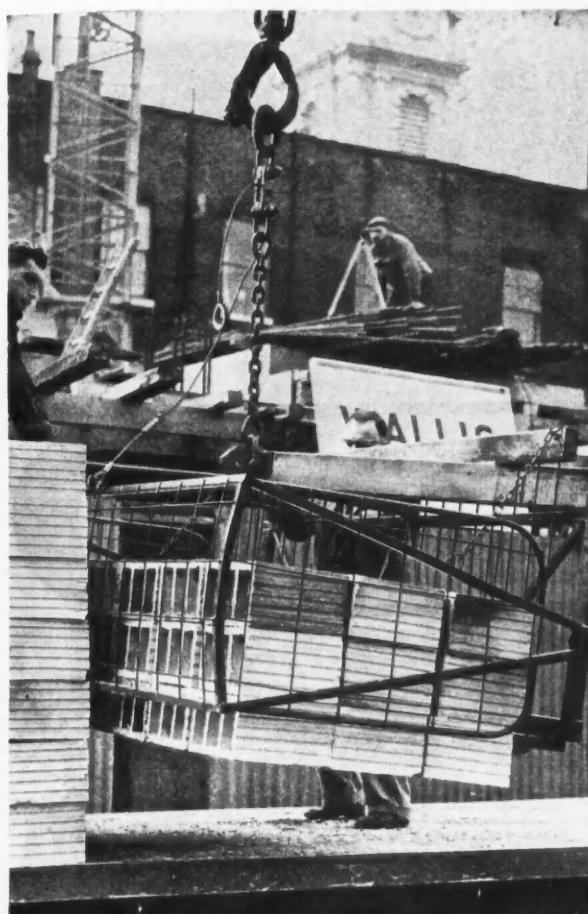
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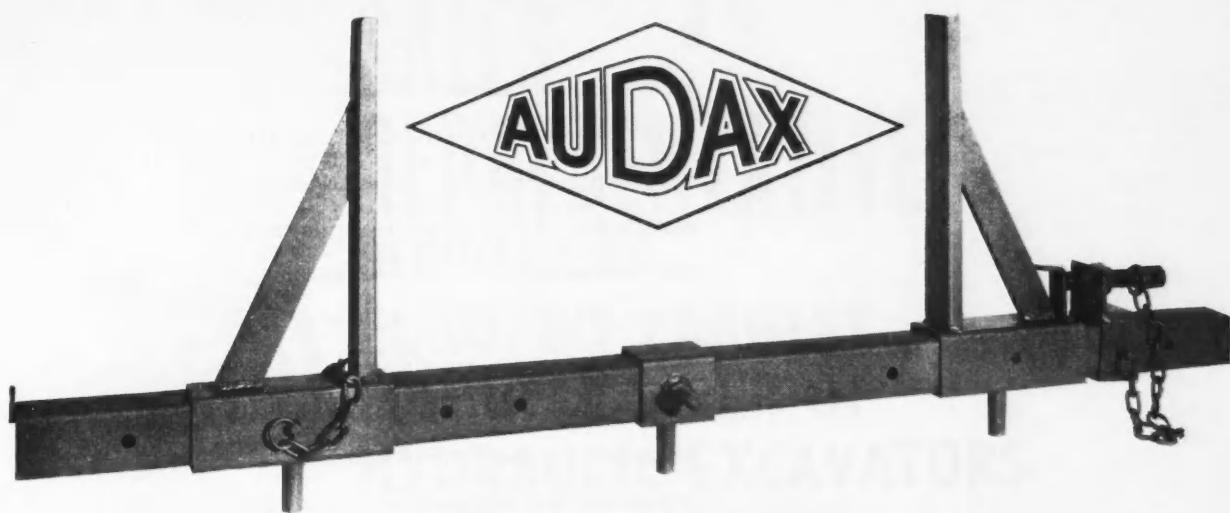
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A new lifting device designed to facilitate mechanical handling of standard 12" x 12" "Phorpres" Hollow Clay Floor Blocks of all sizes from 4" to 10" deep.

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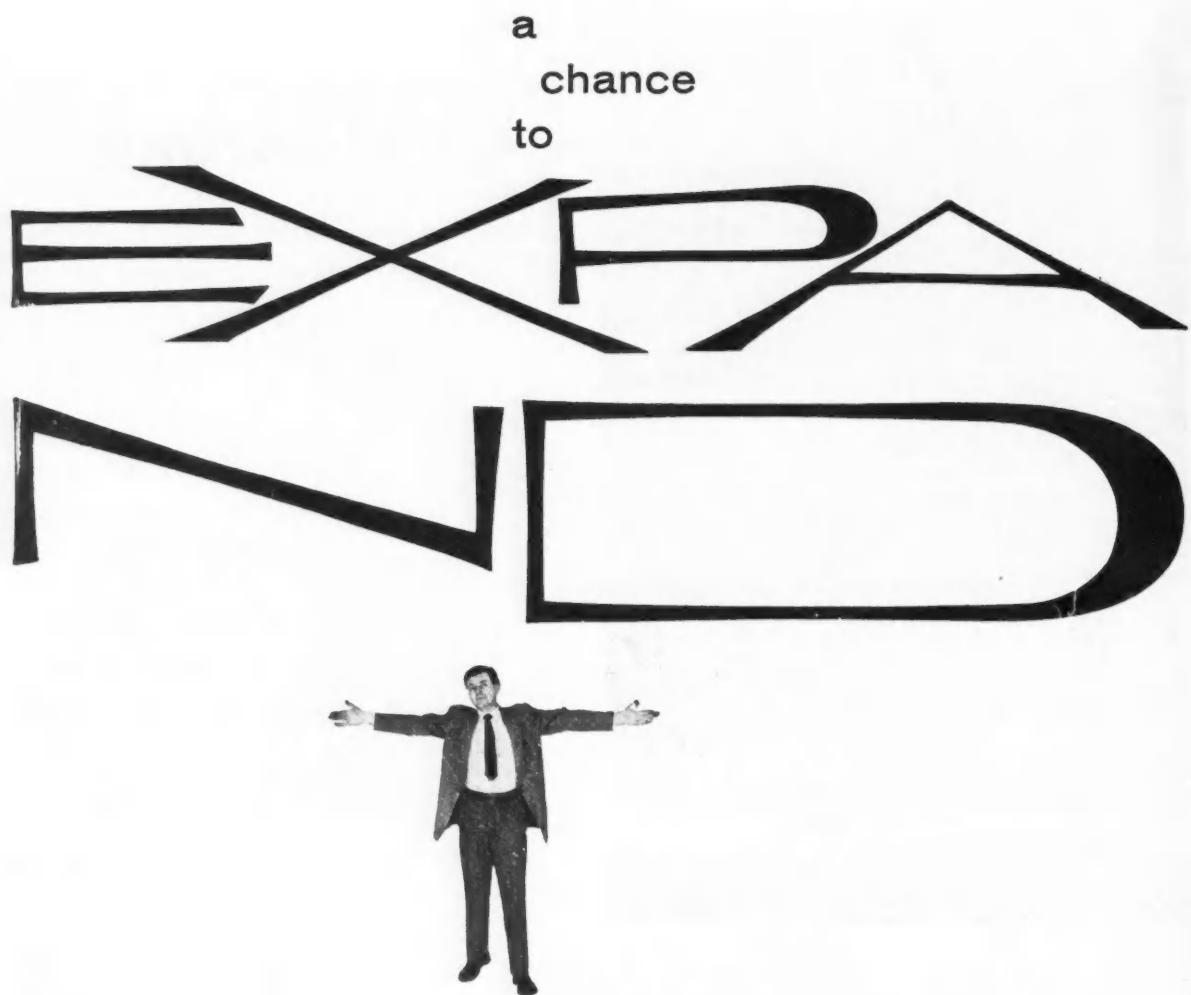
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A new adjustable Beam Clamp combining light weight, exceptional strength, and reasonable price.

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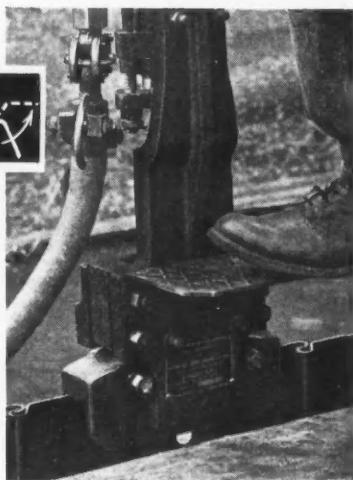
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Steel trench sheeting can be driven by hand or with a compressed-air-operated jack hammer. Far more rapid progress, however, and lower driving costs are obtained by using one of the lightweight McKiernan-Terry double-acting hammers, as illustrated above.

For full details of Section L8 and of the lap-jointed sections T2 and T3, please write for List No. 212.



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SALES REPRESENTATIVES REQUIRED BY EUROPE'S LARGEST MANUFACTURER OF HYDRAULIC EXCAVATORS



TERRITORIES:

Southern England—Located in London and Bristol.

TARGET:

To consolidate the Company's Distributor and Dealer network and to develop new sales outlets and prospects.

QUALIFICATIONS:

Several Years direct selling experience preferably in high quality capital plant market. Energy, ideas and ability to get to the top.

SALARY:

By arrangement. Company Car Provided.

The Company is expanding rapidly and is now enlarging its field sales force in the Southern Counties to provide closer coverage.

A contributory pension scheme is in operation and the posts are superannuated. Applications in writing, which will be treated in the strictest confidence to:

**The Sales Director, J. C. Bamford (Excavators), Ltd.
Lakeside • Rochester • Staffs.**

ARE YOU A SERVICE MANAGER?

**WITH A WIDE KNOWLEDGE OF
HYDRAULIC EARTHMOVING**

EQUIPMENT

We are looking for a Top Grade Service Manager to take charge of our Service Company, and control a world-wide spares and service organization.

The man we want must have drive and be prepared to work hard. He will be responsible for advising on the expansion of his department and be able to implement Directorial policy on his own initiative.

If you have had experience in hydraulics and earthmoving equipment and have all the answers on service and spares of a product such as ours, please write giving fullest possible details of past experience and academic achievements.

The factory is set in an attractive country district and offers ideal working conditions.

A contributory pension scheme is in operation. Applications in writing, which will be treated in the strictest confidence, to: **The Sales Director,
J. C. Bamford (Excavators) Ltd.,
Lakeside, Rochester, Staffs.**



CONTRACTS

COUNTY BOROUGH OF DUDLEY.
STORM WATER SEWER CONSTRUCTION.

TENDERS.

TENDERS are invited for the CONSTRUCTION of a STORM WATER SEWER at DUDLEY WOOD ROAD. The work comprises approx. 500 lin. yds. of 18in. dia. Surface Water Sewer and the Construction of an Outfall into the Mousescwee Brook.

Tender documents may be obtained from the Borough Engineer, The Council House, Dudley, Worcestershire, on payment of a deposit of £2 2s. which will be returned upon receipt of a bona-fide Tender not subsequently withdrawn, and the return of the documents.

Tenders, in the envelope provided, must be delivered to me not later than the First Post on MONDAY, 30th January, 1961.

P. D. WADSWORTH,
Town Clerk.

The Council House,
Dudley, Worcs.
5th January, 1961.

BOROUGH OF EALING.
LAMMAS VALLEY SURFACE WATER SEWER.

Experienced sewerage contractors are invited to TENDER for 969yd. 39in. dia. (159yd. 33in. dia. 75yd. 27in. dia. and smaller) SEWERS in Heading; 15in. dia.; 12in. dia., 500yd. 15in. dia. and smaller SEWERS in Open Cut; 52 Manholes, and numerous appurtenant works.

Drawings may be inspected, and Forms of Tender, etc., obtained from Borough Surveyor, Town Hall, Ealing, W.S., on payment of a deposit of £5 (returnable on receipt of a bona-fide Tender).

Tenders to TOWN CLERK, Town Hall, Ealing, W.S., by 9.30 a.m. on WEDNESDAY, 1st March, 1961.

BOROUGH OF MIDDLETON.
ROADS AND SEWERS.

RHODES REDEVELOPMENT—STAGE I.

TENDERS are invited for the CONSTRUCTION of ROADS and SEWERS in connection with the ABOVE, comprising approx. 500 yds. of Carrigeway Roads, 27,700yds. of Footpath and 390 lin. yds. of Sewers.

Conditions of Contract and Plans may be inspected, and copies of the Specification, Bills of Quantities and Form of Tender obtained from the Office of the Borough Engineer and Surveyor, Town Hall, Middleton, on payment of a deposit of £2 2s., returnable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Roads and Sewers—Rhodes Redevelopment—Stage I," to reach the undersigned not later than Noon on MONDAY, 13th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

F. JOHNSTON,
Town Clerk.

Town Hall,
Middleton.
5th January, 1961.

BOROUGH OF BASINGSTOKE.
HOUNDMILLS INDUSTRIAL ESTATE—PROVISION OF SOIL SEWER.

TENDERS are invited for the CONSTRUCTION of approximately 1,800 lin. yds. of CAST-IRON SEWER, consisting of 9in., 12in. and 15in. diameter Pipes, together with Brick and Precast Concrete Manholes and other ancillary Works.

Bills of Quantities and Form of Tender may be obtained from the Borough Surveyor, Municipal Buildings, Basingstoke, on payment of a deposit of Two Guineas, which will be refunded upon the receipt of a bona-fide Tender not subsequently withdrawn and the return of the Specification. Drawings and General Conditions of Contract may be inspected at the office of the Borough Surveyor during normal office hours.

Tenders, in plain sealed envelopes endorsed "Tender—Houndmills Sewer," must be delivered to the undersigned not later than Noon on THURSDAY, 9th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

L. WOMERSLEY,
Town Clerk.

Municipal Buildings,
London Road,
Basingstoke,
Hants.

BOROUGH OF BARNES.
CHERTSY COURT—12 FLATS AND 12 GARAGES.

LAMBERT AVENUE—FOUR GARAGES.

TERM-PRICED TENDERS are invited for the ERECTION of EIGHT TWO-STORYED and FOUR SINGLE-STORYED ONE-BEDROOM FLATS, together with Small Outbuildings and 16 Garages.

Forms of Tender, Drawings and Bills of Quantities may be obtained from the office of the undersigned to whom Tenders, sealed in envelope provided, must be returned not later than 12 Noon on THURSDAY, 16th February, 1961.

Covered Bills, completed in ink, under separate cover if preferred, should be forwarded to this office on the same day.

W. R. SHEPHERD, A.M.I.C.E., F.R.I.C.S.,
M.I.Mun.E., A.M.T.P.I.,
Borough Engineer and Surveyor.

Municipal Offices,
Sheen Lane,
S.W.14.

BOROUGH OF LOUTH.
WATER SUPPLY—CONTRACT NO. 5.

RESERVOIR AT HORNCastle ROAD.

TENDERS are invited for the CONSTRUCTION of a REINFORCED CONCRETE RESERVOIR of 1m. gallons capacity at Horncastle Road, Louth, Lincolnshire.

Contractors wishing to tender for these works shall apply for the documents to the Council's Consulting Engineers, JOHN H. HAITE AND PARTNERS, Belmont House, 20 Wood Lane, Hendon, London, E.13, enclosing a deposit cheque value Three Guineas made payable to the Louth Corporation, such deposit to be refunded upon receipt of a bona-fide Tender and the return of all the documents.

Tenders, with Bills of Quantities priced in ink, are to be submitted to the undersigned not later than 12 Noon on the 6th FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender they may receive.

WALTER HOLT,
Town Clerk.

Town Hall,
Louth, Lincs.

CONTRACTS

GLOUCESTERSHIRE COUNTY COUNCIL.

CONTRACTS

MERRYWALKS IMPROVEMENT, STROUD.

TENDERS are invited for the ABOVE TOWN IMPROVEMENT WORK, which includes the Demolition of three Small Blocks of Property, comprising 500 cu. yds. Excavation, 200 sq. yd. Retaining Wall, 4,000 cu. yd. Compacted Fill, and Widening, Regrading, Kerbing, Surfacing, Drainage and Footpath Works. Approx. length of scheme, 470 lin. yds.

Tender documents can be obtained from the County Surveyor, Queen Street, Gloucester, on payment of a deposit of £5 payable to the Gloucestershire County Council, which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelope endorsed "Merrywalks Improvement," must be received by the County Surveyor, Queen Street, Gloucester, not later than 10 a.m. on THURSDAY, 9th February, 1961.

The County Council does not bind itself to accept the lowest or any Tender.

GUY H. DAVIS,
Clerk of the Council.

Shire Hall,
Gloucester.
January, 1961.

BOROUGH OF HESTON AND ISLEWORTH.

SPORTS PAVILION—THORNbury PLAYING FIELDS, ISLEWORTH.

TENDERS are invited for the ERECTION of a SPORTS PAVILION, incorporating Public Conveniences, Refreshments, etc.

Firms wishing to tender should make application to the Borough Surveyor, 88 Lampton Road, Hounslow, by 27th JANUARY, with a deposit of two Guineas which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn.

Formal Tender, Bills of Quantities will be forwarded on about 6th February, 1961.

Tenders must be received by the undersigned, in the envelope provided, by 10 a.m. 27th FEBRUARY, 1961.

The Council are not bound to accept any Tender.

D. MATTHESON,
Town Clerk.

Town Hall,
Hounslow, Middx.

BOROUGH OF STAMFORD.

ANNUAL CONTRACTS.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and/or EXECUTION of WORK for the period ending 31st March, 1962:

- (a) Tarred Slag and/or Granite, Bituminous Macadam.
- (b) Clean Granite and Slag Chippings.
- (c) Gravel and Sand.
- (d) Pitching Stone.
- (e) Concrete and Kerb and Edging.
- (f) Dressed Granite Edged Kerb.
- (g) Concrete Slags.
- (h) Sawn Natural Stone Flags.
- (i) Surface Dressing.
- (j) Petroleum Spirit and Derv Fuel.

Forms of Tender and Conditions may be obtained from the Borough Surveyor and Engineer, Town Hall, Stamford, Lincs.

Tenders, sealed in the envelope provided, and bearing "Tender for Item _____," but bearing no other mark or name indicating sender, are to be delivered to the undersigned not later than FRIDAY, 10th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

H. BEDFORD,
Town Clerk.

Town Hall,
Stamford.

BOROUGH OF KEIGHLEY.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

LOW LEVEL OUTFALL SEWER.

CONTRACT NO. 1.

TENDERS are invited for the CONSTRUCTION of approximately 2,500yd. of CONCRETE PIPE SEWER varying from 36in. to 51in. dia., together with Manholes, including an Inverted Siphon below the River Worth. Contract documents may be obtained on MONDAY, 23rd January, 1961, from the Borough Engineer and Surveyor, Victoria Street, Keighley, on payment of a deposit of £5 which will be returned on receipt of a bona-fide Tender.

Plans may be inspected at the Office of the Borough Engineer.

Tenders, sealed in the envelope provided, to the undersigned not later than 10 a.m. THURSDAY, 9th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. W. SMITH,
Town Clerk.

Town Hall,
Keighley.

FRIMLEY AND CAMBERLEY URBAN DISTRICT COUNCIL.

SURFACE WATER DRAINAGE SCHEME.

CONTRACT NO. 1.

The Council invite TENDERS on a Fixed-price Basis from experienced civil engineering contractors for the construction of a MAIN INTERCEPTING SURFACE WATER SEWER with Branches, comprising 640 lin. yds. of Reinforced Concrete Channel and Culvert 5ft. 6in. wide, and 3,730 lin. yds. of Extra Strength Reinforced Spun-concrete Pipes fitted with Cornelius Flexible Joints, 36in., 38in., 24in., 21in., 18in. and 15in. in diameter, including overall length of 33in. Spun-concrete Pipes, together with Concrete Manholes and other incidental works.

The Contract will be subject to the I.C.E. Conditions of Contract, and copies of the Form of Tender, Specification, Bills of Quantities and Drawings may be obtained from the Engineers, MESSRS. WILCOX, RAIKES AND MARSHALL, 33 Great Charles Street, Birmingham, 3, on and after 30th January, 1961, on payment to them of a deposit of Five Guineas by cheque drawn in favour of the Council, which will be refunded on receipt of a bona-fide Tender and the return of all documents and Drawings supplied to them.

Tenders, on the form supplied, are to be delivered to the undersigned, in the envelope provided, not later than 12 o'clock, Noon on MONDAY, the 27th day of February, 1961, with the value and particulars of work, and a short narrative caption on.

The Council do not bind themselves to accept the lowest or any Tender.

(Signed) K. S. HARVEY,
Clerk of the Council

Municipal Buildings,
Camberley, Surrey.

CONTRACTS

COUNTY BOROUGH OF ROTHERHAM.

FENTON ROAD EXTENSION.

TENDERS are invited from experienced contractors for the CONSTRUCTION of approx. 2,000 lin. yds. of A NEW SINGLE CARRIAGeway ROAD, including Earthworks, Foundations, Dense Bituminous Macadam Surfacing, Kerbing, Flanking Surface Water and Subsoil Drainage, Soilings and Seeding, together with Accommodation Works.

Specifications and Bills of Quantities may be obtained from MR. E. MANSON, B.Eng., A.M.I.C.E., Borough Engineer, Municipal Offices, Howard Street, Rotherham, on payment of a deposit of £5 (Five Guineas) which will be refunded on receipt of a bona-fide Tender and not subsequently withdrawn.

Drawings may be inspected at the Offices of the Borough Engineer during normal working hours.

Tenders, in plain sealed envelope, endorsed "Fenton Road Extension," must be delivered to the undersigned not later than 10 a.m., WEDNESDAY, 15th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

JOHN S. WALL,
Town Clerk.

Municipal Offices,
Howard Street,
Rotherham.
10th January, 1961.

COUNTY BOROUGH OF NORTHAMPTON.

CULVERTING OF RAEURN ROAD BROOK.

TENDERS are invited for the CULVERTING of 550yd. of OPEN WATERCOURSE in 36in. and 48in. dia. ARMCO Corrugated Nestable Pipe.

Particulars may be obtained from the Borough Engineer, Guildhall, Northampton, on payment of a £2 2s. deposit which will be refunded on receipt of a bona-fide Tender and not subsequently withdrawn.

Tenders, in plain sealed envelope, endorsed "Raeburn Road Brook," must be received not later than 10 a.m., 11th FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

C. E. VIVIAN ROWE,
Town Clerk.

BRIERLEY HILL URBAN DISTRICT COUNCIL.

WATERSIDE—SEWERAGE.

CONTRACT NO. 1.

TO CONTRACTORS.

The above-named Council invite TENDERS for the EXECUTION of SEWERAGE WORKS, comprising Breaking-out Existing Sewers, Furnishing and Laying new Sewers, including the Re-lining sewer about 15in., 30in., and 33in. Cement-granite Concrete Pipe Sewers, Manholes, Ventilators, etc. Laying about 10yd. of 24in. Spun-iron Outfall Pipe into New Harbour, and the Construction of a Pumping Station, and other appurtenant works.

Contractors desirous of tendering are requested to send their names and addresses to D. BALFOUR AND SONS, MM.I.C.E., 131 Victoria Street, Westminster, London, S.W.1, together with a cheque deposit for £10 made payable to the Holyhead Urban District Council, not later than 10th FEBRUARY, 1961, after which the particulars will be issued. The deposit will be returned on receipt of a bona-fide Tender and the receipt of all printed documents after the Contract has been let.

It is essential that the contractor shall have had considerable experience in similar work and be prepared to tender with an approved society for the fulfilment of the Contract.

The lowest or any Tender will not necessarily be accepted by the Council.

D. LLOYD HUGHES,
Clerk to the Holyhead U.D.C.

ROYAL WESTERN COUNTIES HOSPITAL GROUP, STARCROSS.

TENDERS are invited for the SUPPLY of the UNDERTAKEN COMMODITIES for the period of three, six or 12 months from 1st April, 1961:

Meat, Fish, Bread, Flour and Confectionery, Groceries and Provisions, Minerals, Milk and Eggs, Staff Uniforms, Patients' Clothing, Drapery, Bedding and Linen, Leather.

The closing date for completed Tenders is 18th FEBRUARY, 1961, and Forms of Tender may be obtained from the undersigned.

L. W. HEDGER,
Secretary/Finance Officer, Royal Western Counties Hospital Management Committee.

Executive Offices,
Starcross,
Near Exeter.

THE MAIDSTONE AND DISTRICT CREMATORIUM JOINT COMMITTEE.

TENDERS are invited for the FOLLOWING:

- (1) The Erection of a New Crematorium and Alterations to the existing Lodge Building.
- (2) The Construction of a New Entrance and Reception Room, etc. to the proposed Crematorium Buildings in Vinters Park, Maidstone.

Not later than Noon on 1st FEBRUARY, 1961, contractors, who wish to tender for either or both of the Contracts, should so inform the undersigned at the address: One, 26 Tonbridge Road, Maidstone, Kent, who will thereupon supply Forms of Tender and Bills of Quantities with an indication as to the closing date for tendering.

Applications must be accompanied by a deposit of Two Guineas for each Contract for which it is desired to tender, and the deposit will be refunded on the receipt of a bona-fide Tender not subsequently withdrawn, and the return of the Contract documents. Cheques to be made payable to the Maidstone and District Crematorium Joint Committee.

Bills of Quantities will be sent to applicants during the week commencing 6th February, 1961.

The Committee does not bind itself to accept the lowest or any Tender.

By Order,
GEO. LETCHFORD,
Clerk to the Joint Committee.

Council Offices,
26 Tonbridge Road,
Maidstone, Kent.

CONTRACTS

KENT COUNTY COUNCIL.

TENDERS are invited from road contractors by not later than the 17th FEBRUARY, 1961, addressed to the Chairman of the Roads Committee, County Hall, Maidstone, for TARMACADAM SURFACING of EXISTING CONCRETE ROADS. Kerbing and incidental works, at EYNNSFORD RISE and ST. MARTIN'S DRIVE, Eynsford. Lengths 390yd. and 442yd. respectively.

Drawing and Tender Form may be inspected, and Specification and Bill of Quantities obtained, from the COUNTY SURVEYOR, County Hall, Maidstone, on payment of £2, returnable upon receipt of bona-fide Tender.

BEDFORDSHIRE COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

ANNUAL CONTRACTS, 1961-62.

TENDERS are invited for the FOLLOWING— Supply and Lay Single Course and Two Coat Tarmacadam, Open and Close Texture Bitumen and Tar Carpets, Gravel Asphalt Base Course and Wearing Course, Hot Sand Asphalt Carpet, and Fine Cold Asphalt by Barber-Greene, etc.

Supply Bitumen Slag and Granite, Tarred Slag and Granite, Gravel Asphalt, Fine Cold Asphalt, Concrete Kerbs, Concrete Pipes and Tubes, Granite (including Precoated Chippings), Gravel, etc., Portland Cement Slag (including Precoated Chippings), Stoneware Pipes (Seconds), Tar (including Mechanical Spraying), Cold Bitumen Emulsion, Bitumen (Filler) for Reflecting Roadstuds, Thermoplastic White Line Material.

Hire of Lorries, Road Rollers and Verge Cutting Equipment, Excavators, Dredges, etc.

Schedule Contract for Kerbing, Haunching, Winter Gritting and Snow Clearing, Drainage, Footpaths and Culverts.

Forms of Tender from the County Surveyor, Dents Road, Bedford. Completed Tenders must be submitted in an envelope addressed to the Clerk of the County Council, Shire Hall, Bedford, or on or before SATURDAY, 18th February, 1961.

GEORGE BREWIS,
Shire Hall,
Bedford.
10th January, 1961.

BEDWORTH URBAN DISTRICT COUNCIL.

BLACK HORSE ROAD CARRIAGEWAY AND FOOTWAY WORKS.

TENDERS are invited from experienced contractors for the ABOVE-NAMED WORKS, which consist of approx. 3,070 sq. yd. of Bitumen Macadam Carpet and Tarmacadam Regulating Course where required, approx. 200 feet, which area is to be totally reconstructed; approx. 2,470 sq. yd. of Flexible Footway Construction, Kerbing Works, and a small amount of Road Drainage and other appurtenant works.

Tender documents may be obtained from the Engineer and Surveyor to the Council on payment of a deposit of Two Guineas, which will be returned on receipt of a bona-fide Tender, including priced Bill of Quantities.

Tenders, in the envelopes provided, endorsed "Road Works—Black Horse Road," and bearing no mark or indication of the sender, must be delivered by the undesignated not later than THURSDAY, 9th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

S. G. DEEMING,
Clerk of the Council.

Council Offices,
Bedworth.

YIEWSLEY AND WEST DRAYTON URBAN DISTRICT COUNCIL.

LONGFORD SEWERAGE SCHEME.

The Council invite contractors with wide experience of similar works, and who are willing to TENDER for THIS SEWERAGE SCHEME, to submit their names, together with full details of their experience, to the Engineer and Surveyor at Drayton Hall, West Drayton, by Noon on THURSDAY, 9th February, 1961.

The works will comprise a Pumping Station with Two Sets of Equipment, each to deliver 100 g.p.m., and with wet and dry wells approx. 20ft. deep, together with 1,450 lin. yd. of Gravity Sewer 630 lin. yds. 9in. G.S. and 520 lin. yd. of 6in. Spun-Iron Pipe, 820 lin. yd. of 4in. and 6in. S.G.S. Pipes in House Connections, 380 lin. yd. of 4in. Spun-Iron Rising Main, complete with Manholes and ancillary works.

The depths of the Sewers vary between 5ft. and 18ft. 6in. Boreholes indicate that the water table varies between approx. 4ft. and 17ft. below ground level, and that the subsoil is composed of large layers of gravel interspersed with layers of clay and sand, some of which is running sand at various depths.

From the names submitted, a select list of contractors will be chosen and subsequently provided with Bills of Quantities and other general documents.

ARTHUR BOOTE,
Clerk of the Council.

Drayton Hall,
West Drayton,
Middlesex.

9th January, 1961.

LITTLEBOROUGH URBAN DISTRICT COUNCIL.

The above Council invite TENDERS for the SUPPLY of the FOLLOWING MATERIALS during the year ending 31st March, 1962:

Roadstone Chippings and Wet-mix.
Concreting Aggregates.
Coated Macadam.
Flags, Kerbs and Setts (Natural Stone).
Concrete Flags and Kerbs.
Earthenware Pipes.
Tar and Bitumen Compounds.
Scavenging Brushes.
Road Grids and Manhole Covers.
Gas Coke.
Salts.

Specification and Form of Tender may be obtained on application to Mr. D. W. ALLISON, B.Sc.(Eng.), A.M.I.M.E., Engineer and Surveyor, Council Offices, Littleborough.

No Tender will be received except in a plain sealed envelope, bearing the words "Tender" followed by the subject to which it relates, but which must not bear any name or mark indicating the sender.

Tenders, sealed and endorsed as above, must be received by the undersigned not later than 12 o'clock on SATURDAY, 11th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

R. C. CLOUGH,
Clerk of the Council.

Council Offices,
Littleborough.

21st January, 1961.

CONTRACTS

WILTSHIRE COUNTY COUNCIL.

TENDERS invited for the FOLLOWING WORKS:—

(a) Preston Lane, Lyneham.—Realignment and Widening of approx. 630 lin. yd. of Road, including Kerbing, Drainage, Footpath Construction and Ciliation.

(b) Wroughton High Street.—Construction of approx. 600 lin. yd. of new Carrigeway (Lean-mix Concrete Foundation), Footpaths, Surface Water Drainage, Prestressed Concrete Culvert. Adjustment to Statutory Undertakers' Plant, accommodation works, etc.

(c) Hungerdown Lane, Chippenham.—Realignment and Widening, involving Excavation and Construction of approx. 450 lin. yd. of new Carrigeway, including a 48in. span Armcroft Culvert, Surface Water Drainage, Footpaths, Kerbing, etc.

Contractors may apply for either, or all, of Items (a), (b) and (c).

Relevant documents obtainable from County Surveyor, County Hall, Trowbridge, on payment of £2 deposit per item, returnable on receipt of a bona-fide Tender.

Drawings may be inspected, by appointment, at the above address.

Tenders, in envelopes provided, bearing no name or mark indicating origin, returnable by 5 p.m. on 27th FEBRUARY, 1961.

R. P. HARRIES,
Clerk of the County Council.

COUNTY BOROUGH OF MERTHYR TYDFIL.

ANNUAL TENDERS, 1961-62.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERTAKEN GOODS for the 12 months' period commencing 1st April, 1961:—

(1) Ironmongery.

(2) Road Macadam.

(3) Crushed Stone/Slag Aggregates.

(4) Prestressed Concrete Products.

(5) General Builders' Stores.

(6) Cleaning Materials.

(7) Brushes.

(8) Electrical Goods.

(9) Metal Castings.

(10) Glazed Stoneware Products.

(11) Slag Ballast.

(12) Gritting Materials.

(13) Natural Stone Products.

(14) Ready Mixed Concrete.

(15) Paints.

Documents will be available to bona-fide merchants, manufacturers and other suppliers on application to the Borough Engineer and Surveyor, Town Hall, Merthyr Tydfil, Glam.

Applications must state which of the goods they wish to tender for, and tenders, in a plain sealed envelope, endorsed "Tender for —", must be sent to reach the undersigned not later than First Post on SATURDAY, 18th February, 1961.

The Council reserve the right to accept any Tender in whole or in part, but do not bind themselves to accept the lowest or any Tender.

T. S. EVANS,
Town Clerk.

Town Hall,
Merthyr Tydfil, Glam.

BOROUGH OF KING'S LYNN.

PUMPING STATION NO. 2 AT MESSRS. CAMPBELL'S SOUPS, LTD.

TENDERS are invited for the SUPPLY and ERECTION at the ABOVE PUMPING STATION of THREE SETS of ELECTRICALLY DRIVEN, CLOSE COUPLED CENTRIFUGAL PUMPS, with ancillary equipment.

Copies of the Specification, Form of Tender may be obtained from the Office of H. G. RIDLER, M.I.M.E., Borough Engineer, 17 Queen Street, King's Lynn, upon payment of a deposit of £2 2s. which will be refunded on receipt of a bona-fide Tender.

Tenders must be returned to the undersigned, in the envelope provided, not later than Noon on THURSDAY, 16th February, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

E. W. GOCHER,
Town Clerk.

Town Hall,
King's Lynn.

BOROUGH OF MOSSLEY.

TENDERS are invited for the SUPPLY of the FOLLOWING ROAD MATERIALS during the year ending 31st March, 1962:—

(1) Gully Pots.

(2) Manhole Covers and Frames.

(3) Fine Cold Asphalt and Precoated Chippings.

(4) Numerous Macadam.

(5) Screened and Unscreened Ashes.

(6) Concrete Flags.

(7) Concrete Kerbs.

(8) Concrete Aggregates (Coarse).

(9) Sand.

(10) Bitumen Emulsion.

(11) Dustbins.

(12) Paraffin.

Forms of Tender can be obtained from N. H. BOWDLER, Borough Surveyor, Town Hall, Mossley.

Bidders must receive by the undersigned in a plain sealed envelope, endorsed "Tender for —", not later than Noon on MONDAY, 20th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender, and reserve the right to accept any part of any Tender.

V. C. PROCTER,
Town Clerk.

38 Manchester Road,
Mossley.

GRANGEMOUTH TOWN COUNCIL.

CONSTRUCTION OF PUMPING STATION AT BOWHOUSE.

TENDER documents will shortly be issued for the CONSTRUCTION of the ABOVE PUMPING STATION.

The Building will be approx. 86ft. 52in. square area, and the Excavation for the Substructure will extend approx. 30ft. below ground surface. The Substructure will have a permanent Steel Sheet Piled Curtains Wall and will be constructed of Reinforced Concrete, as will the Framing for the Superstructure.

Contractors who will receive TENDER documents should send their names to MESSRS. BABIE, SHAW AND MORTON, Chartered Civil Engineers, 17 Blythswood Square, Glasgow, C.2, under Ref. 955/56.

The Council reserve the right to make a selection from the list of applications and do not bind themselves to accept the lowest or any offer.

W. BRYCE JOHNSTON,
Town Clerk.

Municipal Chambers,

Grangemouth,

January, 1961.

CONTRACTS

BOROUGH OF WATFORD.

SOIL AND SURFACE WATER SEWERS TO HOLYWELL ESTATE NO. 2 (PART).

Public works contractors are invited to TENDER for the CONSTRUCTION of the FOLLOWING:

774 lin. yd. of Single Sewers 6in. dia. to 21in. dia. in Open Cut up to 16ft. deep.

274 lin. yd. of Dual Sewers 12in. dia. to 21in. dia. in Open Cut up to 12ft. 6in. deep.

Five Manholes: Nine Single Manholes;

Applications for documents, accompanied by a deposit of £5 5s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, should be made to MR. F. C. SAGE, Borough Engineer and Surveyor, Town Hall, Watford.

Tenders must be delivered to the undersigned, in the envelope provided, not later than 2 p.m. on MONDAY, 13th February, 1961.

GORDON H. HALL,
Town Clerk.

Town Hall,
Watford.

January, 1961.

BOROUGH OF BASINGSTOKE.

BASING ROAD TRUNK SEWER—CONTRACT NO. 4.

FIXED-PRICE TENDERS are invited from experienced contractors for the CONSTRUCTION, testing and MAINTENANCE of 1,680yd. of 39in. and 42in. dia. CONCRETE FOUL SEWER PIPES, Reinforced Concrete Pumping Station and Balancing Tank, 700yd. of 12in. dia. Spun-Iron Rising Main, Brick Manholes, and ancillary works.

A copy of this Contract documents may be obtained on and after Wednesday, 1st February, 1961, from the Council's Consulting Engineers, MESSRS. LEMON AND SONS LTD., 59 Tufton Street, Westminster, S.W.1, upon payment of a deposit cheque of Five Guineas made payable to the Borough Council, which will be returned on receipt of a bona-fide Tender and the return of all documents.

The Form of Tender and a priced Bill of Quantities must be delivered in a plain sealed envelope, endorsed "Tender for Basing Road Trunk Sewer—Contract No. 4," to the undersigned before Noon on WEDNESDAY, 1st March, 1961.

The Plans and Drawings may be seen during normal working hours at the Offices of either the Consulting Engineers or the Council.

The Council do not bind themselves to accept the lowest or any Tender.

L. WOMERSLEY,
Town Clerk.

Municipal Buildings,

London Road,

Basingstoke, Hants.

BOROUGH OF WARWICK.

PERCY ESTATE, CENTRAL AREA—SHOPS.

TENDERS are invited for the CONSTRUCTION of the FOLLOWING:

Six Shops, Offices and Stores, forming two Single-storey Blocks.

Six Maisonnnettes and Two Flats Over Six Garages and Utility Rooms, forming two Three-storey Blocks, Ground Floor Residential, First Floor Offices.

GENERAL: The Single-storey Block will be in the form of a Reinforced Concrete Frame and Concrete Flat Roof. The Three-storey Blocks are load-bearing with Reinforced Concrete Intermediate Floors and Roof.

The successful contractor will be given the opportunity of tendering for the Internal Finishing of the Shops.

Copies of the Bill of Quantities, General Conditions and Form of Tender will be available as from the 1st February, 1961, and may be obtained from the undersigned on payment of £2 2s. deposit, which will be refunded upon a receipt of a bona-fide Tender. Drawings may be seen at this Office during normal working hours.

The date for submission of Tenders will be indicated on a letter accompanying the documents.

C. E. BROWN, A.M.I.M.E.,
Borough Engineer and Surveyor.

23 Jury Street,

Warwick.

CHIGWELL URBAN DISTRICT COUNCIL.

(READVERTISEMENT).

STRADBROKE DRIVE, CHIGWELL (3RD SECTION).

The Council invite TENDERS for WORKS comprising approx. 320 lin. yd. kerbing, 1,070 sq. yd. Carrigeway, 1,120 sq. yd. Footways and 1,040 sq. yd. Features.

Tender Forms, Bills and Specification on deposit of £2 2s. (refundable after submission of bona-fide Tender not subsequently withdrawn and return of documents) from Engineer and Surveyor (address below, where Drawings and Contract Conditions may be inspected).

Contract will provide for Fair Wages Clause and Bond.

Tenders, in sealed envelope (provided), bearing no mark indicating sender, to be delivered to the CLERK TO THE COUNCIL, Council Offices, Old Station Road, Loughton, by 15th FEBRUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

TAF FECHAN WATER SUPPLY BOARD.

LOW LEVEL MAIN DUPLICATION—PHASE I.

CONTRACT NO. 41—PIPELAYING.

TENDERS are invited from public works contractors for the LAYING of approx. Six Miles of 24in. dia. and One Mile of 30in. dia. STEEL TRUNK MAINS in the RIVER TAFF VALLEY, between Abercanaid and Quakers' Yard, near Merthyr Tydfil, Glamorgan. The Contract includes two Railway Crossings, four River Crossings and four Major Cross-connections to existing Trunk Mains.

Tender documents and Drawings may be obtained from the Engineers, MESSRS. BINNIE, DEACON AND GOURLEY, Artillery House, Artillery Row, Westminster, S.W.1, between the 27th January and the 3rd February, 1961, on payment of a deposit of Ten Pounds by cheque in favour of the Taf Fechan Water Supply Board. This deposit will be refunded on receipt of a bona-fide Tender.

Tenders, in plain sealed envelopes, endorsed "Tender for Contract No. 41," shall be delivered at my Office before Noon on FRIDAY, 3rd March, 1961.

The Board does not undertake to accept the lowest or any Tender and will not defray any expense in connection with tendering.

D. W. HARRIS,
Clerk.

Water Board Offices,

Castle Street,

Merthyr Tydfil,

South Wales.

CONTRACTS

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF HOME AFFAIRS.

TENDERS are invited for the SUPPLY of the FOLLOWING STORES, which are required for the Constabulary Forces:

Waterproof Clothing,

Linen Sheetings,

Fianellete Guncloth.

Tender Forms may be obtained on application to the SECRETARY, Ministry of Home Affairs, Stormont, Belfast, 4.

Applicants should indicate for which supply they wish to tender. Preference will be given to firms on the King's National Roll.

CAMBRIDGESHIRE COUNTY COUNCIL.

RECONSTRUCTION OF CROSS-ROADS, ROUTE A.11, NEAR PAMPISFORD STATION.

CONTRACT 6020.

TENDERS are invited for the CONSTRUCTION of approx. 530 lin. yd. of NEW ROAD and 200 lin. yd. of WIDENING on EXISTING ROAD, including approx. 6,000 cu. yd. of Fill; Broken Concrete Base Course, Gravel Asphalt, and ancillary works.

Documents in respect of the work may be obtained from the County Surveyor at the address given below. Tenders in the official envelope, must reach the undersigned not later than 9 a.m., THURSDAY, 9th February, 1961.

CHARLES PHYTHIAN,

Clerk of the Council.

Shire Hall,

Castle Hill,

Cambridge.

BOROUGH OF ABINGDON.

MAIN SEWERAGE AND SEWAGE TREATMENT SCHEME.

The COUNCIL will shortly be inviting TENDERS for the CONSTRUCTION of SEWERS, a Main Sewage Pumping Station and a Sewage Treatment Works.

The work includes: (a) 3,300 lin. yd. approx. of Main Sewers constructed of Concrete Tubes varying in dia. from 21in. to 36in.; (b) 1,000 lin. yd. of Concrete Tubes, Manholes; (c) Main Sewage Pumping Station and 750 lin. yd. approx. of 18in. dia. and 27in. dia. Twin Rising Main; (d) a Sewage Treatment Works designed to give full treatment to flows not exceeding 2,250 g.p.m., and partial treatment to flows exceeding this figure, and consisting of Grit Chamber, a Block of Retentive Sedimentation Tanks, Storing Balancing Tanks, eight Circular Biological Filters, four Circular Humus Tanks, Two-stage Heated Sludge Digestion Plant, Sludge Drying Beds, two Pumping Stations, together with Ancillary Buildings, Structures, Pipelines and Site Works.

Experienced Contractors wishing to be considered for a select list of firms who will be invited to tender should submit their names and addresses to the Borough Engineer at the address given below, to reach him not later than First Post on WEDNESDAY, 8th February, 1961.

The Council reserves the right to invite Tenders only from those firms who, in the opinion of the Council, have had adequate experience in this type of work, and have adequate resources to complete the work satisfactorily within a reasonable period.

Applications must include a list of Contracts recently completed, together with full particulars of at least two Contracts completed in the fields of main sewerage and sewage treatment.

E. W. J. NICHOLSON,

Town Clerk.

Council Offices,

The Abbey House,

Abingdon, Berks.

13th January, 1961.

BOROUGH OF CHATHAM.

RESHAPING AND RESURFACING OF ROADS.

1960/61.

TENDERS are invited for the RESHAPING and RESURFACING in COLE ASPHALT of approx. 12,000 super. yd. of CARRIAGeway and the RECONSTRUCTION of approx. 1,250 super. yd. of FOOTWAY, together with ancillary works, in the FOLLOWING STREETS within the Borough:

Dock Road; Waggon Street; King Street; Chamberlain Road; Dale Street, and Dale End.

Forms of Tender, Conditions of Contract, Specification and Bills of Quantities may be obtained from MR. J. A. T. RICHARDS, Borough Engineer and Surveyor, Town Hall, Chatham, on payment of a deposit of £2 2s. which will be refunded upon receipt of a bona-fide Tender or the return of all issued documents before the closing date for receipt of Tenders.

Tenders must be delivered in accordance with the Conditions of Tender to the undersigned not later than 12 Noon on MONDAY, 6th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

ROWLAND NEWNES,

Town Clerk.

Town Hall,

Chatham.

ISLE OF AXHOLME RURAL DISTRICT COUNCIL.

WEST BUTTERWICK SEWERAGE SCHEME.

TENDERS are invited for the FOLLOWING:-
CONTRACT No. 1.—The Construction of approx. 480 lin. yd. of 6in. and 9in. dia. Sewers, together with Manholes, Sewerage Electr. Station and Rising Mains, and a Sewage Treatment Works at West Butterwick, in the Isle of Axholme Rural District, Lincolnshire.

CONTRACT No. 2.—The Supply and Erection at West Butterwick of two 50 gallons per minute Electors and one Sludge Pump or 50 g.p.m., all complete with Electric Motors, Starters and Accessories.

Contractors wishing to tender should apply for the documents and Drawings to the Council's Consulting Engineers, Messrs. JOHN H. HAISTON AND PARTNERS, Belmont House, 20 Wood Lane, Leeds, 6 enclosings, a deposit cheque value Three Guineas in respect of each contract, made payable to the Isle of Axholme R.D.C., such deposit to be refunded upon receipt of a bona-fide Tender and the return of all documents and Drawings.

Tenders, with the Bills of Quantities priced in ink, are to be submitted to the undersigned not later than 12 Noon on the 23rd FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender they may receive.

S. W. CHESTER,

Clerk to the Council.

The Gables,

Epworth,

Doncaster.

13th January, 1961.

CONTRACTS

BEDFORDSHIRE COUNTY COUNCIL.

LONDON-INVERNESS TRUNK ROAD, ROUTE A.6.

IMPROVEMENT OF BEND SOUTH OF DUCK END, WILSTEAD.

TENDERS are invited for the ABOVE WORK, which entails Clearing Site, Earthworks, Surface Water Drainage, Extension and Partial Reconstruction of the Culvert, and the Relocation of existing Culvert on the Trunk road to 24ft. for a length of ap. ex. 400yd.

Tender documents and basic Drawings may be obtained from the County Surveyor, Dents Road, Bedford, on depositing the sum of £2 which will be refundable upon receipt of a bona-fide Tender or return of documents before closing date. Detailed Drawings may be inspected by appointment.

Sealed Tenders, in a plain envelope endorsed "Improvement at Duck End, Wilstead," must be delivered to the undersigned by 12 Noon on FRIDAY, 3rd February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

GEORGE BREWIS,

Clerk of the County Council.

Borough of Ealing.

TENDERS for CONSTRUCTION of Two CULS-DE-SAC each 150ft. long, with Surface Water Drainage and Ancillary Pipeworks, off MARSHM CRESCENT, GREENFORD.

Plans can be seen and documents obtained from Borough Engineer, Town Hall, Ealing, W.S. on payment of £5, returnable on receipt of bona-fide Tenders.

Tenders to TOWN CLERK, Town Hall, Ealing, W.S. by Noon on FRIDAY, 3rd February, 1961.

Borough of Uxbridge.

CONTRACT NO. 473.

RICKMANSWORTH ROAD, HAREFIELD.

TENDERS are invited from experienced contractors for the WIDENING of PART of RICKMANSWORTH ROAD, from Newdigate Road to Hall Drive.

The works will comprise the Widening of the existing 20ft. Carrageway to 30ft., including 2,000 sq. yd. of Tar and Bitumen Macadam Surfacing, the Provision of 400 sq. yd. of Tarmacadam Footway, 100 lin. yd. of Surface Water Sewer, together with Kerbing, Channelling, Gully Connections and Concrete Gully Crossings.

Forms of Tender Specification and Bills of Quantities may be obtained from H. E. G. STRIPP, A.M.I.C.E., Borough Surveyor, 263 High Street, Uxbridge, and should be returned to the undersigned by First Post on WEDNESDAY, 1st February, 1961.

E. RONALD WEST,

Town Clerk.

City of Bath.

PRIVATE STREET WORKS.

FORESTER LANE, BATHWICK.

TENDERS are invited for the MAKING-UP of FORESTER LANE.

The principal works comprise: 600 super. yd. Bituminous Macadam Carrageway; 360 super. yd. Bituminous Macadam Footway; 300 lin. yd. Kerb and Channel; 120 lin. yd. 9in. diameter Water Sewer.

Conditions, Specification, Bills of Quantities and Forms of Tender obtainable from, and Plans and General Conditions inspected at, the Office of the City and Waterworks Engineer, Guildhall, Bath, upon deposit of £2 2s., refunded upon receipt of a bona-fide Tender.

Tender to be in official envelope and returned to the undersigned not later than Noon, MONDAY, 6th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

JARED E. DIXON,

Town Clerk.

Guildhall,
Bath.

16th January, 1961.

Swadlincote Urban District Council.

ERCTION OF TWO BLOCKS OF THREE-STORY FLATS.

The Council invite TENDERS on a Fixed-rate Basis for the CONSTRUCTION of 32 FLATS, comprised in two 2-storey Blocks, together with all ancillary works, in Midland Road, Swadlincote.

Contract documents may be obtained from the Engineer and Surveyor, Banks House, Midland Road, Swadlincote, on receipt of a deposit of £2 2s. which will be refunded on receipt of a bona-fide Tender, not subsequently withdrawn, and the return of the signed copy of the Tender to the undersigned.

The Regulations as to Tendering, should be enclosed in plain sealed envelopes endorsed "Tender for 32 Flats—Midland Road, Swadlincote," and be delivered to the undersigned not later than Noon, 14th FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

C. D. HULL,

Clerk of the Council.

Council Offices,
Swadlincote.

North Cornwall Water Board.

PORT ISAAC WATER SUPPLY.

FIXED-PRICE TENDERS are invited from experienced public works contractors for the CONSTRUCTION of about 2,500yd. of WATER MAIN in 6in. diameter and 4in. diameter SPUN CAST-IRON PIPEs, complete with Silice Valves, Hydrants, etc., and for the Installation of Pressure-reducing Valves, all in the vicinity of PORT ISAAC, North Cornwall.

Contract documents may be obtained from the Engineer and Surveyor, Banks House, Midland Road, Swadlincote, on payment of a deposit of £3s. which will be refunded upon receipt of a bona-fide Tender, not subsequently withdrawn, and the return of all documents and Drawings. Remittance should be made payable to the North Cornwall Water Board.

Tenders, on the form provided, together with a fully priced Bill of Quantities, are to be delivered to the undersigned in plain sealed envelopes endorsed "Port Isaac Water Supply," not later than Noon on THURSDAY, 16th February, 1961.

The Board does not bind itself to accept the lowest or any Tender, and no payment will be made for any Tender submitted.

C. J. HOTHERSALL-BUCKLEY,

Clerk to the Board.

Hill Road,
 Wadebridge,
 North Cornwall.

16th January, 1961.

Angus County Council.

HILLSIDE DRAINAGE.

NEW OUTFALL AND OTHER SEWERS.

TENDERS are invited for SUPPLYING and LAYING approx. 3,230yd. 24in. and 18in. dia. R.C. PIPES, 12in. and 9in. F.C. PIPES, with Precast Manholes and other relative work.

Contract documents may be obtained from the Office of the County Engineer, County Buildings, Forfar, where Drawings may be seen.

Sealed Tenders are to be returned to the undersigned by 10 a.m. on MONDAY, 20th February, 1961.

IAN A. MACKNIGHT,

County Clerk.

COUNTY BOROUGH OF WEST HAM.

CANNING TOWN PUMPING STATION.

CONTRACT NO. 1.

Applications are invited from civil engineering contractors who are willing to submit TENDERS on a Fixed-price Basis for the ABOVE SCHEME.

The works included in the Contract comprise a Stormwater Pumping Station with a Sump approx. 25ft. deep; a Siphon Chamber on an existing sewer, together with Connecting Pipework; approx. 155 lin. yds. of 30in. dia. Outfall Pipeline in high strength Reinforced Concrete Pipe, together with an Outfall Chamber to the River Lee, and Site Works including a small Ancillary Building.

The Supply and Installation of Pumping Machinery and Switchgear is included in a separate Contract.

Applications for Tender documents, enclosing a crossed cheque for Five Pounds Sterling payable to the West Ham Corporation, should be submitted now to the Corporation's Consulting Engineers, MESSRS. JOHN TAYLOR AND SONS, Artillery House, Artillery Row, Westminster, S.W.1. The payment will be refunded on receipt of a bona-fide Tender.

The Tender documents will be forwarded to applicants on or about the 30th January, 1961, and must be returned by Noon on WEDNESDAY, 1st March, 1961.

The Drawings included in the Tender documents may be inspected in the Offices of the Borough Engineer and Surveyor, or at the Offices of the Consulting Engineers.

(Signed) G. E. SMITH,

Town Clerk.

West Ham Town Hall,
Stratford,
London, E.15.

CITY OF CARDIFF.

CITY SURVEYOR'S DEPARTMENT.

RECONSTRUCTION OF CANTON POLICE STATION, COWBRIDGE ROAD, CARDIFF.

STEELWORK.

FIXED-PRICE TENDERS are invited for the SUPPLY and ERECTION of STRUCTURAL STEELWORK for the Reconstruction of Canton Police Station, Cowbridge Road, Cardiff.

Conditions of Tender, Specification and Drawings may be obtained from the City Surveyor, to whom application should be made, accompanied by a deposit of £2 2s. Cheques should be made payable to the Cardiff Corporation and crossed "Not Negotiable and Co."

The deposit will be refunded on receipt of a bona-fide Tender or the return of the Contract documents by noon.

Tender will not be considered unless enclosed in a plain sealed envelope endorsed "Tender for Structural Steelwork—Canton Police Station," addressed to the undersigned at the City Hall, Cardiff, and sent by Registered Post so as to be received not later than Monday, 1st March, 1961.

The envelope must not bear the name of, or any mark indicating the identity of, the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,

Town Clerk.

City Hall,
Cardiff.

January, 1961.

WEST BRIDGFOR URBAN DISTRICT COUNCIL.

REMOVAL OF FOOTBRIDGE OVER GRANTHAM CANAL—RUTLAND ROAD.

TENDERS are invited for the DEMOLITION of a STEEL FOOTBRIDGE, consisting of part of the Canal adjacent to the Bridge, Constructing a 30in. dia. Pipe Culvert, Footpath and Fencing Works.

Bills of Quantities, Specification, Plans and Form of Tender may be obtained from the Office of the Engineer and Surveyor, The Hall, West Bridgford, Nottingham, on payment of a deposit of £2 which will be refunded upon receipt of a bona-fide Tender.

Tender in plain sealed envelopes, endorsed "Tender for the Removal of Footbridge," are to be delivered to the undersigned not later than 12 Noon, MONDAY, 13th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

A. G. MANSFIELD,

Clerk of the Council.

The Hall,
West Bridgford,
Nottingham.

13th January, 1961.

HAVERFORDWEST RURAL DISTRICT COUNCIL.

PORTHMAWR WATER EXTENSION.

TENDERS, on a Fixed-price Basis, are invited from competent civil engineering contractors for PROVIDING and LAYING approx. 3,100yd. of 3in. ASBESTOS-CEMENT PRESSURE PIPE, with Valves, Fittings and other appurtenances works.

The site is situated 16 miles north-west of Haverfordwest.

Plans, Specification and Bills of Quantities may be obtained from the Council's Engineer and Surveyor, 8-10 Picton Place, Haverfordwest. No deposit required, but Council reserves the right to charge for documents not returned.

Tenders to be received by me not later than

FRIDAY, 17th February, 1961.

The Council does not undertake to accept the lowest or any Tender and acceptance is subject to the approval of Welsh Office, Ministry of Housing and Local Government.

(Signed) HENRY J. DICKMAN,

Clerk of the Council.

8-10 Picton Place,

Haverfordwest.

11th January, 1961.

CONTRACTS

COUNTY BOROUGH OF EASTBOURNE.
TO BUILDING CONTRACTORS.

It is proposed to invite FIRM-PRICE TENDERS from selected contractors for the ERECTION of a CENTRAL LIBRARY of 22,000 sq. ft., and a BLOCK of OFFICES 32,000 sq. ft., on a site in GROVE ROAD, Eastbourne.

Contractors wishing to tender should submit their names, together with particulars of building work previously undertaken, to the Borough Surveyor, 2 and 4 Saffrons Road, Eastbourne, by 28th FEBRUARY, 1961.

From the names submitted, a number of contractors will be selected, and these will be supplied with tendering documents on or about 20th June, 1961.

No Tender will be considered unless it is sent in a plain sealed envelope addressed to the undersigned and bearing the words "Tender for Library and Offices," but devoid of any name or mark indicating the sender, and delivered not later than 12 Noon on 20th JULY, 1961.

The lowest or any Tender will not necessarily be accepted.

F. H. BUSBY,
Town Clerk.

Town Hall,
Eastbourne.

COUNTY BOROUGH OF EASTBOURNE.
BOROUGH ENGINEER'S DEPARTMENT.
ANNUAL TENDERS.

The COUNCIL invite TENDERS for the SUPPLY of the UNDERMENTIONED MATERIALS for the 12 months commencing on 1st April, 1961:

No.

- (1) Ballast and Sand.
- (2) Cement and Lime.
- (3) Granite Chippings.
- (4) Gravel.
- (5) Precast Concrete Paving Slabs and Kerb.
- (6) Dustbins.
- (7) Brooms and Brushes.
- (8) Hired Haulage.

General Conditions, Specifications and Forms of Tender may be obtained from the Borough Engineer, 2 and 4 Saffrons Road, Eastbourne.

Tenders must be delivered to the undersigned on or before 11th FEBRUARY, 1961. No Tender will be considered unless it is sent in a plain sealed envelope, addressed to "The undersigned," bearing the words "Tender for _____" (followed by the subject to which it relates), but not with any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any Tender, and reserve the right to accept the whole or any part of a Tender.

F. H. BUSBY,
Town Clerk.

Town Hall,
Eastbourne.
16th January, 1961.

BOROUGH OF DORCHESTER.
REINFORCED CONCRETE SERVICE RESERVOIR.

Contractors possessing the necessary experience and plant, and wishing to TENDER for the ABOVE SERVICE, are invited to submit their names to the undersigned by 31st JANUARY, 1961.

The work consists of the Construction of a Reinforced Concrete Service Reservoir of 1m. gallons capacity with 17ft. water depth.

Applications must be accompanied by a list of works of a similar nature carried out by the contractor.

R. DAVISON, M.I.Mun.E., Assoc.I.W.E.,
Borough Engineer and Surveyor.

Municipal Offices,
North Square,
Dorchester.

BOROUGH OF RAWTENSTALL.
ERECTION OF FLATS—BURNLEY ROAD EAST.
WATER.

TENDERS are invited for the ERECTION of a BLOCK of EIGHT FLATS—Burnley Road, East, Water. Copies of the Bills of Quantities and Form of Tender may be obtained from J. B. BURRELL, Borough Engineer and Surveyor, Town Hall, Rawtenstall, Rossendale, Lancs., on payment of Two Guineas which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

The General Conditions of Contract and the Contract Drawings may be inspected at the Borough Engineer's Office during normal office hours.

Tenders, on the form supplied, must be delivered to the undersigned not later than 12 Noon on the 18th FEBRUARY, 1961.

The contractor whose Tender is accepted will be required to provide a satisfactory surety for the due performance of the Contract.

The Council do not bind themselves to accept the lowest or any Tender.

(Signed) COLIN CAMPBELL,
Town Clerk.

LEATHERHEAD URBAN DISTRICT
COUNCIL.

TENDERS are invited for HIGHWAY IMPROVEMENT WORKS on the A.246 near BECKLEY COTTAGES, Great Bookham, including 1,700 lin. yd. Kerbing, 2,400 sq. yd. Lean-Mix Concrete, 8,000 sq. yd. Bituminous Macadam Carriageway Surfacing, 3,200 sq. yd. Footway Surfacing, Drainage, and ancillary works.

Documents obtainable from the Engineer and Surveyor's Department, Reed House, Leatherhead, where Plans may be inspected.

Tenders to be returned by Noon, 25th FEBRUARY, 1961.

J. EDE,
Clerk of the Council.

WIGSTON URBAN DISTRICT COUNCIL.
PRIVATE STREET WORKS.

TENDERS are invited for the MAKING-UP of BRURLEIGH AVENUE (part), KINGSTON AVENUE (part), WESTFIELD AVENUE (part) and THE CRESCENT, Wigston, a total of approx. 860 lin. yd.

Particulars, Specification and Form of Tender may be obtained from the Engineer and Surveyor at the address below on payment of a deposit of £5 5s., which is returnable on receipt of a bona-fide Tender. Cheques to be made payable to Wigston Urban District Council.

Tenders to be delivered to the undersigned not later than 12 Noon on 16th FEBRUARY, 1961.

W. H. GUNNING,
Clerk of the Council.

Council Offices,
Wigston,
Leicester.

CONTRACTS

COUNTY BOROUGH OF CROYDON.
NOTICE TO BUILDERS.

Contractors with the organisation and labour force to carry out work expeditiously, wishing to TENDER for the following CONTRACTS in Three 5-storey Blocks and 10 3-bedroom Houses and 20 Garages in the Third Stage Redevelopment at ELY/HOLMESDALE ROAD SITE, should apply to the Borough Engineer, Town Hall, Croydon, for Bills of Quantities.

Closing date for Tenders: 28th FEBRUARY, 1961.

E. TABERNER,
Town Clerk.

BOROUGH OF GUILDFORD.
STOUGHTON RECREATION GROUND SURFACE
WATER SEWER.

TENDERS are invited for CONSTRUCTING 463 in. yd. of 24in. and 21in. PRECAST CONCRETE SEWER and ancillary works.

Documents from Borough Engineer.
Tenders must reach me by Noon on MONDAY, 13th February, 1961.

HERBERT C. WELLER,
Town Clerk.

Municipal Offices,
Guildford.

CITY OF MANCHESTER.
TENDERS invited for ELECTRICAL INSTALLATION
to PUBLIC CONVENIENCES at PICCADILLY.

Specifications and Drawings from the CITY ARCHITECT, P.O. Box 488, Town Hall.

Tenders returnable by 6th FEBRUARY.

CITY OF SHEFFIELD.

TENDERS are invited for the UNDERMENTIONED SUPPLIES for the Works of the Sheffield Corporation from 1st March, 1961, —

Floor Polish, Floor Sweeping Compound, Miscellaneous Cleaning Materials, Paraffin, Turpentine Substitute and Confectionery comprising boiled sweets and chocolates.

The necessary Forms of Tender, to be obtained on application to the Town Clerk, Town Hall, Sheffield, to whom completed Forms of Tender must be delivered not later than 10 a.m. on FRIDAY, 3rd February, 1961.

JOHN HEYS,
Town Clerk.

Town Hall,
Sheffield.
19th January, 1961.

HALE URBAN DISTRICT COUNCIL.

TARSPLAINING

FIXED-PRICE TENDERS are invited for SURFACE DRESSING of about 36,000 sq. yd. of CARRIAGE-WAYS.

Tendering documents may be obtained from the Engineer and Surveyor.

Tenders must be in plain sealed envelopes endorsed "Tender—Tarsplain," and reach me by 2nd FEBRUARY, 1961.

R. W. HORSFALL,
Clerk of the Council.

Council Offices,
Hale, Cheshire.

FARNHAM URBAN DISTRICT COUNCIL.
ERECTION OF GARAGES.

The Council invite TENDERS for the ERECTION of GARAGES on SITES within the Urban District, as follows:

- (a) Beldham Road, Wrecclesham—One Block of Eight Garages.
- (b) Wrecclesham Hill, Hale—One Block of Six Garages.
- (c) Baldreys Estate, Green Lane—One Block of 10 Garages.
- (d) Greenhill Close, Short Heath—One Block of Two Garages.
- (e) Northgate Road, Folly Hill—Two Blocks of Six Garages.
- (f) Newcome Road, Weybourne—One Block of 23 Garages.

The Garages will be constructed in Brickwork, with Framed Roof covered with Corrugated Asbestos Sheetings.

Form of Tender, Specification and Schedule of Works may be obtained from GEOFFREY POOLE, A.M.I.C.E., Engineer and Surveyor, Council Offices Annex, South Street, Farnham, Surrey, on deposit of Two Guineas, which is returnable on receipt of a bona-fide Tender, and/or return of all documents.

General Conditions of Contract and Drawings may be inspected at the Office of the Engineer and Surveyor during normal working hours.

Tenders are to be returned to the undersigned, in the endorsed envelope provided, not later than 9 a.m. TUESDAY, 28th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender, they may receive, and the Council may accept one or more Tenders for the works and, in so doing, amend the time allowed for completion.

H. W. UNDERDOWN,
Clerk of the Council.

Council Offices,
South Street,
Farnham, Surrey.

TETBURY RURAL DISTRICT COUNCIL.

AVENING SEWERAGE.

PROPOSED SEWER AT WOODSTOCK.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of about 180 lin. yd. of 6in. SEWER.

Tendering documents may be obtained from, and Plans inspected by appointment, at the office of the Council's Consulting Engineers, MESSRS. HARVEY McGILL AND HAYES, 38 Market Place, Chippenham, Wilts.

Applications are to be accompanied by a cheque for Two Pounds, payable to the Tetbury Rural District Council, and in the case of contractors who have not previously carried out work for the Council or under the direction of the Engineers, by particulars of similar work done and the names and addresses of the Engineers concerned. The deposit will be returned upon receipt of a bona-fide Tender, not subsequently withdrawn and return of all documents required.

Tenders are to be delivered to the undersigned not later than 10 a.m. on WEDNESDAY, 8th February, 1961, in an envelope, endorsed "Tender for proposed Scheme at Woodstock."

The Council do not bind themselves to accept the lowest or any Tender.

EDWARD J. BROWN,
Clerk of the Council.

Council Offices,
Tetbury,
Glos.

January, 1961.

CONTRACTS

COUNTY BOROUGH OF CROYDON.
NOTICE TO BUILDERS.

CONTRACTS

COUNTY BOROUGH OF CROYDON.
FIRE BRIGADE UNIFORM.

TENDERS are invited for UNIFORM CLOTHING, FOOTWEAR, etc., for men and women. Details and Tender Forms may be obtained from the Chief Officer, Central Fire Station, Croydon. Closing date for Tenders: 4th MARCH, 1961.

E. TABERNER,

Town Clerk.

BOROUGH OF SUTTON AND CHEAM.

ROADWORKS PROGRAMME—1961/62.

The CORPORATION invites TENDERS for GENERAL WORKS of ROAD and FOOTWAY MAINTENANCE in Classified and District Roads throughout the Borough during the financial year 1961/62.

The Specification, Form of Tender and Schedule of Rates may be obtained from C. NEEDHAM, M.I.C.E., A.M.I.Struct.E., Borough Engineer and Surveyor, Municipal Offices, High Street, Sutton, on payment of £2 2s., returnable on submission of a bona-fide Tender. Contracts will be made payable to the Sutton and Cheam Borough Councils.

Tenders, on the prescribed form in the envelope provided, bearing no indication of the name of the sender, and endorsed "Roadworks—1961/62," must be delivered at the Office of the undersigned not later than 10 a.m. on TUESDAY, 21st February, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

A. PRIESTLEY,

Town Clerk.

Municipal Offices,
Sutton, Surrey.
January, 1961.

FAREHAM URBAN DISTRICT COUNCIL.

WEST END SURFACE WATER DRAINAGE
SCHEME—STAGE II.

The Council invite FIXED-PRICE TENDERS for the BOLEBY CONTRACT, comprising about 1,178yd. of 36in. dia. Concrete Pipe Sewer (flexible joints), together with Pre-cast Concrete Manholes and other ancillary works.

Conditions of Contract and Drawings may be inspected, and Tender documents obtained from the Engineer and Surveyor, Westbury Manor, West Street, Fareham, Hants., on payment of deposit of £2, which is returnable on receipt of bona-fide Tender.

Form of Tender to me by Noon, 23rd FEBRUARY, 1961, with other documents to Engineer and Surveyor by same date.

The Council do not bind themselves to accept the lowest or any Tender.

B. W. RANDS,

Clerk of the Council.

TURTON URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS. 1961-62.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS for the year ending 31st March 1962:

- (1) Crushed Granite and Limestone.
- (2) Crushed Gritstone and Quarry Sand.
- (3) Washed Gravel and Sand.
- (4) Tarmacadam and Bitumen Macadam.
- (5) Pre-cast Concrete Kerbs, Channels and Flags.
- (6) Refined Tar, Bituminous Compounds and Emulsion.
- (7) Crushed Salt.
- (8) Stoneware Pipes.
- (9) Coal and Coke.
- (10) Cast-Iron Gully Grates and Manhole Covers.
- (11) Blocks.
- (12) Petroleum Products (no Tender Form supplied).

Particulars and Forms of Tender may be obtained upon application to Mr. REGINALD DART, M.I.Mun.E., D.I.T.P., A.M.T.P.I., Engineer and Surveyor, Council Offices, Bromley Cross, near Bolton, Lancs. Tenders, when made, are to be submitted in two parts, one for the main contract and one for the scheme, as the case may be, but bearing no name or mark indicating the sender, must be delivered to the undersigned not later than 24th FEBRUARY, 1961.

The Council reserves the right to divide any contract, and does not bind itself to accept the lowest or any Tender.

H. LEWIS,

Clerk of the Council.

Council Offices,
Bromley Cross,
Near Bolton.
16th January, 1961.

TRINITY HOUSE, LONDON.

TENDERS are invited for the SUPPLY of the FOLLOWING:

Boat Hooks; Oars; Cleaning Cloths; Disinfectants; Soaps; Sundry Cleaning Stores; Brooms and Brushes; Flags and Bunting; Glassware and Crockery; Cotton Waste; Chamom Leathers and Metal Polish.

Forms of Tender, available from the SECRETARY, Trinity House, Tower Hill, London, E.C.3, must be delivered by 2 p.m. on WEDNESDAY, 13th February, 1961.

COLERAINE HARBOUR COMMISSIONERS.

REMOVAL OF RUBBLE FROM CHANNEL AT RIVER BANN ENTRANCE.

The Coleraine Harbour Commissioners are prepared to receive TENDERS from competent contractors, with experience in marine works, for the EXCAVATION and REMOVAL of HEAVY RUBBLE from the CHANNEL at the ENTRANCE to the RIVER BANN, in accordance with the Conditions of Contract, Specification, Bill of Quantities, Form of Tender and Contract Drawings prepared by their Consulting Engineers, F. CHAPMAN, M.I.C.E., M.Cons.E., The Quay, Poole, Dorset.

The work is of a difficult nature, and only those applicants who satisfy the Commissioners as to their competence to undertake the work will receive the tendering documents.

Copies of the necessary documents may be obtained from the Consulting Engineers upon payment of a deposit of Five Guineas, which will be refundable upon receipt of a bona-fide Tender, or in the event of it being decided not to supply the documents. Cheques should be made payable to Coleraine Harbour Commissioners and crossed.

Details of the applicant's experience should accompany the application.

The Commissioners do not bind themselves to accept the lowest or any Tender received.

W. E. HENRY,

Secretary.

54 Stone Row,
Coleraine.

CONTRACTS

EAST SUFFOLK COUNTY COUNCIL.

CONTRACT NO. 39.

TENDERS are invited for HEATING and PLANING and LAYING 1½ in. GRANITE ASPHALT SURFACING with Precoated Chippings over 1,300 lin. yd. (11,700 sq. yd. approx.) at CAPEL ST. MARY TRUNK ROAD, A.12.

Contract documents on application to County Surveyor, County Hall, Ipswich.

G. C. LIGHTFOOT,
Clerk of the Council.

County Hall,
Ipswich.

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY ROADS AND BRIDGES COMMITTEE.BILBROOK BACK LANE, D.146, BILBROOK,
COSBALL—IMPROVEMENT AND RECONSTRUCTION.

TENDERS are invited for the IMPROVEMENT and RECONSTRUCTION of the ABOVE ROAD, which is situated between Bilbrook Road and Pendeford Mill Lane, Bilbrook, Codnor, and Wolverhampton.

The Work comprises the Construction of approximately 500yd. of 16ft. wide Carriageway with Footpath and Verges.

The Work involves Excavation, Provision of Surface Water Sewer, Gullies, New Kerbs and Channels, Wet Material Removal and Making-up and Surfacing Road and Footpaths with Bituminous Macadam.

Application for Tender documents should be made to the undersigned, and must be accompanied by a deposit of Five Pounds (£5), which will be refunded on receipt of a bona-fide Tender or return of the documents before the closing date.

Completed Tenders should be returned to the undersigned by not later than 10 a.m. on THURSDAY, 23rd February, 1961.

T. H. EVANS,
Clerk of the County Council.

County Buildings,
Stafford.

NEWPORT (SALOP) URBAN DISTRICT COUNCIL.

WORKS OF SEWERAGE AND SEWAGE DISPOSAL.

CONTRACT NO. 2.

TENDERS are invited for the CONSTRUCTION of about 2,300 lin. yd. of CONCRETE, SPUN-IRON and GLAZED STONEWARE PIPE SEWERS, varying in diameter from 21in. to 6in., Manholes, together with a SEWAGE DISPOSAL WORKS comprising Detergent Tanks and Storm Overflow Weirs, Sedimentation Tanks, Pumping Station, Distribution Chamber and Bacteria Beds, Humus Tanks, Office and Store, and the modification of existing units to Storm Water Tank and Sludge Drying Beds, and Incident Works, in accordance with the Drawings, Specification and Bills of Quantities prepared by the Engineers, MESSRS. A. & S. WATERS AND PARTNERS, of 25 Temple Row, Birmingham, 2.

The Drawings may be seen at, and the General Conditions of Contract, Specification, Bills of Quantities and Form of Tender may be obtained from the offices of the undersigned, or of the Engineers, on or after 2nd February, 1961, on payment of a deposit of Five Guineas, which will be refunded upon receipt of a bona-fide Tender and the return of all documents.

Sealed tenders on the form supplied and in the endorsed envelope provided, are to be delivered to me at my office not later than Noon on 3rd MARCH, 1961.

The Council does not undertake to accept the lowest or any tender.

W. P. GOLDSBROUGH,
Clerk of the Council.

Council Offices,
Newport,
Salop.

16th January, 1961.

SHEERNESS URBAN DISTRICT COUNCIL.

OUTFALL PUMPING STATION—WEST MINSTER.

RECONSTRUCTION OF PENSTOCK CHAMBER.

TENDERS are invited from experienced contractors for the REPAIR of the EXISTING PENSTOCK CHAMBER WITH A SHEET STEEL COFFERDAM. SPECIFICATIONS: TWO EXISTING 12in. diameter PUMPING MAINS, THE FITTING OF NEW VALVES and a PENSTOCK, and other ancillary Works.

It is anticipated that the Contract documents will be available about 6th February, 1961, and copies of the Specification, Bills of Quantities and Form of Tender may be obtained from the Council's Consulting Engineers, MESSRS. LEMON AND BLIZARD, 59 Tufton Street, Westminster, S.W.1, on payment of deposit cheque of Three Guineas, made payable to the Council, which will be returned on receipt of a bona-fide Tender and return of all documents loaned to the contractor.

The Drawings may be inspected at the Engineer's Office or at the Council Office.

The completed Form of Tender, together with a Price Bill of Quantities, is to be delivered to the undersigned in a sealed envelope endorsed "Outfall Pumping Station—West Minster," not later than First Post on TUESDAY, 7th March, 1961.

The Council do not bind themselves to accept the lowest or any tender.

J. GRIFFITHS,
Clerk of the Council.

Council Offices,
Trinity Road,
Sheerness,
Kent.

SHEERNESS URBAN DISTRICT COUNCIL.

NO. 7 HOUSING SCHEME, WEST MINSTER.

SHEERNESS.

ROADS, SEWERS, SURFACE WATER DRAINS,
CULVERT AND EARTHWORKS.

TENDERS are invited for the CONSTRUCTION on the ABOVE SITE of about 2,623 squ. yd. of TARRED MACADAM CARRIAGeway, approximately 198yd. of SOLE SEWERS and 370yd. run of SURFACE WATER DRAINS, together with the CONSTRUCTION of a REINFORCED CONCRETE CULVERT, EARTHWORKS, and other ancillary Works.

Specifications, Bills of Quantities and Forms of Tender may be obtained from, and General Conditions of Drawings inspected at, the offices of the Council's Engineers and Surveyor, K. R. OTT, M.I.M.E. Council Offices, Trinity Road, Sheerness, Kent, upon deposit of Three Guineas, which will be refunded upon receipt of a bona-fide Tender and the return of all documents.

Tenders, in plain sealed envelopes endorsed "No. 7 Site Roads and Sewers," etc., must be delivered to the undersigned not later than Noon on TUESDAY, 7th February, 1961.

(Signed) J. GRIFFITHS,
Clerk of the Council.

Council Offices,
Trinity Road,
Sheerness,
Kent.

CONTRACTS

BOROUGH OF LYMINGTON.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING ITEMS for the period of 12 months ending 31st March, 1962:—

- (a) Road Materials.
- (b) Concrete Commodities.
- (c) Sanitary Requirements.
- (d) Building Items.
- (e) Manhole Covers, Gully Grates, etc.
- (f) Petrol, Derv, Gas Oil, Lubricating Oils and

- (g) White Spirit, Creosote, Putty, etc.
- (h) Forms of Tender may be obtained from the Borough Engineer, Town Hall, Lyminster, upon receipt of a stamped addressed envelope, or on application.

Tenders to be delivered not later than MONDAY, 6th March, 1961.

A. L. SLATER,
Town Clerk.

Town Hall,
Lyminster.

URBAN DISTRICT COUNCIL OF COSELEY.

TENDERS.

TENDERS are invited for the SUPPLY of the UNDERTAKEN MATERIALS during the year ending 31st March, 1962, viz.:—

- (a) Road Materials and Road Signs.
- (b) Tools, Plant and Protective Clothing.
- (c) Building Materials.
- (d) Cast-Iron and Rainwater Goods, Dustbins and Tubular Lineposts.

- (e) Paint and Decorative Materials.
- (f) Plumbing Materials.
- (g) Ironmongery and Hardware.
- (h) Drapers and Soaps.

- (i) Motor Oils and Tyres.
- (j) Printing and Stationery.

Tender Forms forwarded on receipt of a stamped addressed envelope stating items required.

Closing date for Tenders, MONDAY, 13th February, 1961.

Tenders should be sent in plain sealed envelopes, marked "Tenders _____" (state items).

The Council do not bind themselves to accept the lowest or any tender.

JOSEPH C. ROPER,
Clerk of the Council.

Council House,
Coseley.

16th January, 1961.

URBAN DISTRICT COUNCIL OF BENFLEET.

ANNUAL CONTRACTS.

TENDERS are invited for the SUPPLY of the FOLLOWING GOODS and SERVICES for a period of 12 months commencing 1st April:—

- (1) Precast Concrete Paving and Kerbs.
- (2) Cast-Iron Road Covers and Gullies.
- (3) Coal and Coke.

- (4) Metal Sheets and Cold Asphalt.
- (5) Cement, Lime and S.G. Pipes.
- (6) Overalls, Donkey Jackets and Rubber Boots.
- (7) Sand, Gravel, Hoggins, Hardcore and Clinker Ash.

- (8) Resurfacing Brooms for Mechanical Sweeper.
- (9) Surface Dressing of Streets.
- (10) Paint, Distemper and Putty.
- (11) Resurfacing of Roads with Bituminous Gravel.

Form of Tender and further particulars may be obtained from the Engineer and Surveyor at the address below.

Completed Tenders must be returned to me by not later than Noon on THURSDAY, 9th February, 1961. The Council do not bind themselves to accept the lowest or any tender.

D. GRUDGINGS,
Clerk of the Council.

Council Offices,
Thundersley, Essex.

WORTLEY RURAL DISTRICT COUNCIL.

TENDERS FOR ROAD IMPROVEMENT WORKS.

The Council invite TENDERS from experienced civil engineering contractors for the EXECUTION of ROAD IMPROVEMENT WORKS as follows:

Fox Hill Road, Grenoside.—Reconstruction of including Surface Water Drainage—length approx. 400yds.

Middleton Lane, Grenoside.—Reconstruction of Highway—length approx. 135yds. The work includes Surface Water Drainage and Erection of Mass Concrete Retaining Wall.

Contractors must be able to make an immediate start and complete within two months.

Specifications, Bills of Quantities and Forms of Tender may be obtained on application to ARTHUR WILEKEY, M.I.M.E., M.Inst.H.E., M.R.S.H.E. Council Offices, Grenoside, near Sheffield, on payment of a deposit of £3 which will be returned on receipt of bona-fide Tenders.

Tenders, sealed in the envelope provided, are to be received by the undersigned not later than Noon on FRIDAY, 10th February, 1961.

ADRIAN M. KELLY,
Clerk of the Council.

Council Offices,
Wortley, S. Yorkshire.

CHESTERFIELD RURAL DISTRICT COUNCIL.

TENDERS are invited for the CONSTRUCTION of the FOLLOWING SCHEME:

Drakehouse Lane Housing Estate, Beighton, comprising the Laying of the following

Sewers and Roads:

92 lin. yd. of 21in. dia. Reinforced Concrete Pipes.

149 lin. yd. of 18in. dia. Reinforced Concrete Pipes.

359 lin. yd. of 15in. dia. Reinforced Concrete Pipes.

221 lin. yd. of 12in. dia. Reinforced Concrete Pipes.

142 lin. yd. of 9in. dia. Reinforced Concrete Pipes.

1,067 lin. yd. of 6in. dia. Reinforced Concrete Pipes.

439 lin. yd. of 6in. dia. Salt Glazed Pipes.

2,500 lin. yd. approx. 5in. x 10in. Precast Concrete Kerbs.

8,500 sq. yd. approx. 3in. Tarmacadam.

Plans and General Conditions of Contract may be seen at the Engineer's Department, Bills of Quantities, Specification and Form of Tender may be obtained on application to the Council's Engineer and Surveyor, J. H. HAWKINS, M.I.M.E., M.Inst.H.E., M.R.S.H.E. Council Offices, Drakehouse Lane, Saltergate, Chesterfield, on payment of a deposit of Two Guineas, refundable on receipt of a bona-fide Tender not subsequently withdrawn, together with all the documents.

Tenders, endorsed "Drakehouse Lane Housing Estate—Roads and Sewers," should be returned to the undersigned by not later than 10 a.m. on WEDNESDAY, 1st March, 1961.

H. O. HAWKINS,
Clerk of the Council.

CONTRACTS

BOROUGH OF LYMINGTON.

THROOP FOUL SEWER AND RISING MAIN.

TENDERS are invited for the LAYING of the MAINS between HOLDENHURST and THROOP:

910yd. 27in. Concrete Tube.

1,160yd. 27in. Concrete Tube.

770yd. 18in. Concrete Tube.

4,000yd. 3in. Asbestos-cement Pressure Pipe.

Form of Tender, etc., obtainable from Borough Engineer, Town Hall, Lyminster, upon payment of Three Guineas which will be refunded on receipt of a bona-fide Tender (not subsequently withdrawn) and the return of all documents.

Tenders to reach me by the 16th MARCH, 1961.

CONTRACTS

COUNTY BOROUGH OF BOURNEMOUTH.

BOROUGH ENGINEER'S DEPARTMENT.

THROOP FOUL SEWER AND RISING MAIN.

TENDERS are invited for the LAYING of the

and MAINS between HOLDENHURST and THROOP:

910yd. 27in. Concrete Tube.

1,160yd. 27in. Concrete Tube.

770yd. 18in. Concrete Tube.

4,000yd. 3in. Asbestos-cement Cable Duct.

Form of Tender, etc., obtainable from Borough Engineer, Town Hall, Bournemouth, on payment of

Three Guineas which will be refunded on receipt of a bona-fide Tender (not subsequently withdrawn) and the return of all documents.

Tenders to reach me by the 16th MARCH, 1961.

A. LINDSAY CLEGG,
Town Clerk.

BOROUGH OF BEDFORD.

NEW MUNICIPAL OFFICES.

SIX-STORY OFFICE BLOCK.

Contractors desirous of TENDER for the FINAL CONTRACT for the ABOVE PROJECT are invited to submit their names to F. W. DAWKES, Borough Engineer and Surveyor, Northgate Buildings, Bedford, not later than FRIDAY, 10th February, 1961.

A selected list of contractors will be made by the Borough Council from applicants. The period for tendering will be a minimum of four weeks, and tenders will be requested to return price Bills of Quantities with their Tenders.

The new building, which has an internal floor area of about 42,000 sq. ft., is situated adjacent to the existing Town Hall. The Foundations, Basement and Structural Steelwork have been let as separate contracts, which will be completed during April, 1961.

G. F. SIMMONDS,
Town Clerk.

Town Hall,
Bedford.

16th January, 1961.

BOROUGH OF ENFIELD.

24 FLATS, 26 HOUSES AND 50 GARAGES,
HOE LANE, ENFIELD.

Building contractors desirous of TENDERING for the ERECTION of 24 FLATS, 26 HOUSES and 50 GARAGES, Hoe Lane, Enfield, should apply to the Borough Engineer and Surveyor, H. DERYCK PEAKE, M.Sc.(Eng.), M.I.M.E., Little Park Gardens, Enfield, by FRIDAY, 15th FEBRUARY, 1961.

Bills of Quantities and Form of Tender will be forwarded on or about the 10th February, 1961.

All applications must be accompanied by a deposit of £2 2s., to be returned on receipt of a bona-fide Tender addressed to the undersigned, and/or the return of the documents.

Plans and Conditions of Contract may be inspected at the Offices of the Borough Engineer as aforesaid, on or after the 13th February, 1961, on Mondays to Fridays, between the hours of 9 a.m. and 12.30 p.m.

Tenders must reach the undersigned not later than Noon on MONDAY, the 6th March, 1961, and no Tender will be received except in a plain envelope which must be sealed and must bear the words "Tender for 24 Flats, 26 Houses and 50 Garages—Hoe Lane, Enfield," but shall not bear any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any tender.

Contractors tendering will be required to submit particulars of similar works which have been carried out by them.

CYRIL E. C. R. PLATTEN,
Town Clerk.

Public Offices,
Enfield, Middx.

22nd December, 1960.

IRLAM URBAN DISTRICT COUNCIL.

TENDERS are invited for the SUPPLY of the UNDERTAKEN to the Council for the year ending 31st March, 1962, viz.:—

Salt Glazed Ware Pipes, Broken Stone, Chippings, Bitumen, Macadam, Tarmacadam, Concrete Flags, Concrete Kerbs and Channels, Electric Lamps and Petrol.

Forms of Tender and all necessary information may be obtained from the Engineer and Surveyor, Council Offices, Irlam, Manchester.

Tenders, on official forms only, enclosed in sealed envelopes, with the Tender Forms, must be delivered to the CLERK OF THE COUNCIL, Council Offices, Irlam, not later than 10 a.m. on FRIDAY, 24th February, 1961. The envelope should not bear any name or mark indicating the sender.

The Council do not bind themselves to accept any Tender in part only.

I. F. SOILLEUX,
Clerk of the Council.

1 Old Dover Road,

Canterbury, Kent.

17th January, 1961.

BRIDGE-BLEAN RURAL DISTRICT COUNCIL.

CHISLET (UPSTREAM) SEWERAGE SCHEME.

PUMPING PLANT.

TENDERS are invited from manufacturers for the SUPPLY of DUPLICATE ELECTRICALLY DRIVEN VERTICAL SPINDLE DIRECT COUPLED CENTRIFUGAL SEWAGE PUMPING PLANT to discharge approx. 60 g.p.m. against a static head of approx. 64ft. together with ancillary equipment.

Full details can be obtained from the Engineer and Surveyor at the undermentioned address.

Tenders, in sealed envelopes endorsed "Pumping Plant—Upstream," must reach the undersigned by not later than Noon on WEDNESDAY, the 8th March, 1961.

The Council do not bind themselves to accept the lowest or any tender.

I. F. SOILLEUX,
Clerk of the Council.

Council Offices,

61 Old Dover Road,

Canterbury, Kent.

17th January, 1961.

CONTRACTS

HOLLAND COUNTY COUNCIL.

TENDERS are invited from building contractors for the ERECTION of an OLD PEOPLE'S HOME (40 beds) in GRANGE DRIVE, off Haltemgate, Spalding. Plans may be obtained from the County Architect, and Tenders must be submitted to the CLERK OF THE COUNTY COUNCIL, County Hall, Boston, Lincs., by 10 a.m. on 1st MARCH, 1961.

BOROUGH OF ALTRINCHAM.

CONSTRUCTION OF PLAYGROUND—GRANGE ESTATE.

TENDERS are invited from experienced contractors for CONSTRUCTION of a HARDPLAYING AREA, together with the necessary Playground Equipment. Tender documents are available from, and Plans can be inspected at, the Office of the Borough Surveyor.

Tenders to be returned to the undersigned, endorsed "Playground—Grange Estate," not later than 12 Noon, MONDAY, 13th February, 1961.

E. GRAHAM THOMAS,
Town Clerk.

Town Hall,
Altrincham,
January, 1961.

BOROUGH OF MARGATE.

SUPPLY AND ERECTION OF A CAFE AT WEST BAY, WESTGATE.

TENDERS are invited for the SUPPLY and ERECTION of a CAFE at WEST BAY, WESTGATE. Specification and Plans may be obtained from the Borough Engineer, 38 Grosvenor Place, Margate, on application.

Tenders in plain sealed envelopes bearing no name or address indicating the identity of the sender and endorsed "West Bay Cafe," are to be delivered to the undersigned not later than 12 Noon on SATURDAY, 11th February, 1961.

T. F. SIDNELL,
Town Clerk.

Town Clerk's Office,
40 Grosvenor Place,
Margate,
16th January, 1961.

BOROUGH OF MARGATE.

NEW SEA WALL AND PROMENADE FROM MINNIS BAY TO BERESFORD GAP, BIRCHINGTON.

TENDERS are invited from experienced contractors for the CONSTRUCTION of a NEW SEA WALL and ancillary Works, from MINNIS BAY to BERESFORD GAP, BIRCHINGTON. Specification, and of Quantities, Form of Tender and Conditions of Contract, may be obtained from the Office of the Borough Engineer, 38 Grosvenor Place, Margate, at whose Office Plans may be inspected and Site visited by prior appointment.

Tenders enclosed in plain sealed envelopes bearing no name or mark indicating the identity of the sender and endorsed "Sea Wall," are to be received by the undersigned not later than 12 o'clock Noon on SATURDAY, 25th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

T. F. SIDNELL,
Town Clerk.

Town Clerk's Office,
40 Grosvenor Place,
Margate,
16th January, 1961.

CITY OF MANCHESTER.

CHARLESTOWN ROAD TIP CULVERT.

TENDERS are invited for LAYING 346 lin. yd. 18in. diameter CONCRETE TUBE CULVERT and MANHOLES.

Tender documents, returnable by 10 a.m., MONDAY, 27th February, 1961, from the CITY SURVEYOR, Town Hall, Manchester, 2.

CITY OF MANCHESTER.

PRIVATE STREET WORKS.

TENDERS are invited for PAVING and COMPLETING THE FOLLOWING STREETS:

- (1) McConnell Road, Moston—approximately 680 sq. yds. of Bitumen Macadam Carriageway, 410 sq. yds. of Asphalt Sand Carpet Footpaths, and all ancillary Works.
- (2) Whitehead Road and Hackness Road (from Whitehead Road to cul-de-sac end), Chorlton-Hardy—approximately 1,350 sq. yds. of Bitumen Macadam Carriageway, 750 sq. yds. of Asphalt Sand Carpet Footpaths, and all ancillary Works.

Tender documents, returnable by the 6th FEBRUARY, 1961, from the CITY SURVEYOR, Town Hall, Manchester, 2.

LEE CONSERVANCY CATCHMENT BOARD.

PYMMES BROOK IMPROVEMENT SCHEME.

GREEN LANES TO BOWES ROAD.

TENDERS are invited for the FOLLOWING WORKS in the Borough of Southgate in the County of Middlesex:

- (a) Construction of about 4,350ft. of Mass Concrete Open Channel, of widths varying from 16ft. 9in. to 19ft. across the Invert, and heights from 8ft. 6in. to 10ft. 6in.
- (b) Construction of a 15in. dia. Foul Sewer Inverted Siphon under Deadmans Bridge Green Lanes and the Removal of the existing Siphon.
- (c) Construction of two Precast Footbridges.
- (d) Underpinning of about 152 lin. ft. of the Abutments to Deadmans Bridge.
- (e) Demolitions, Filling, Solling, Seeding, Fencing, and other abutment works.

Instructions to tenderers and documents are obtainable from N. MORGAN, A.M.I.C.E., M.I.W.E., Engineer to the Board, The Lee Conservancy Catchment Board, Waltham Cross, Herts. (Tel.: Waltham Cross 24211), on payment of £5, returnable under certain conditions. Documents and detail Drawings may be inspected without payment at the Engineer's Office between the hours of 9 a.m. to 3 p.m., Mondays to Fridays, and 9 a.m. to 12 noon on Saturdays. Copies of detailed Drawings may be obtained on loan.

Tenders are to be delivered to the undersigned before 12 o'clock Noon B.S.T., on MONDAY, the 27th February, 1961.

J. L. SPILLER,
Clerk of the Board.

The Lee Conservancy Catchment Board,
Brettenham House,
Lancaster Place,
Strand, W.C.2.

CONTRACTS

THE CONTRACT JOURNAL

CONTRACTS

COUNTY BOROUGH OF SOUTHAMPTON.

PRIVATE STREET WORKS.

CAERLEON AVENUE (PART), APPROX. LENGTH 83YD.

CAXTON AVENUE, APPROX. LENGTH 137YD.

CONTRACT PSW79.

TENDERS are invited for the MAKING-UP of the ABOVE ROADS, with Tarmacadum Footways and Carrigeways, Concrete Kerbs and Channels, Surface Water Drainage, and incidental works.

Applications for Contract documents to be made before 31st JANUARY, 1961, to the BOROUGH ENGINEER AND SURVEYOR, Civic Centre, Southampton. Documents will be forwarded thereafter as and when ready. Contractors will be informed of the closing dates for submitting completed Tenders. The Council do not bind themselves to accept the lowest or any Tender.

COUNTY BOROUGH OF BURY.

TENDERS Invited for SUPPLY and DELIVERY of ONE NEW 15cwt. DIESEL DUMPER.

Details from Borough Engineer, Town Hall, Bury, must reach me not later than 4th FEBRUARY, 1961.

EDWARD S. SMITH,
Town Clerk.

Town Hall,
Bury,
16th January, 1961.

BOROUGH OF BERWICK-UPON-TWEED.

ANNUAL CONTRACTS.

TENDERS are invited for the SUPPLY for the year ending 31st March, 1962, of the FOLLOWING:

(1) Kerosene, Petrol, Diesel Fuel.
(2) Tarmacadum and Dry Road Metal.

Conditions of Contract, Specification, Schedules and Forms of Tender may be had on application to the Borough Surveyor at the address below.

Tenders, enclosed in plain envelopes, sealed and endorsed "Tender for _____," but bearing no name or address indicating the senders, must be delivered to the undersigned not later than WEDNESDAY, 15th February, 1961.

The Corporation do not bind themselves to accept the lowest or any Tender, and reserve the right to accept only part of a Tender.

R. B. DAVISON,
Town Clerk.

Municipal Buildings,
Wallace Green,
Berwick-upon-Tweed.
19th January, 1961.

CITY OF WAKEFIELD.

CONSTRUCTION OF ROAD AND SEWER, AND 27 FLATS IN THREE 3-STORY BLOCKS AT PINFOLK LANE.

Contractors experienced in the EXECUTION of COMBINED PROJECTS such as the ABOVE, and wishing to submit TENDERS on a Fixed-price Basis for this Contract, are invited to submit their names to the City Engineer, Town Hall, Wakefield, not later than MONDAY, 6th February, 1961.

This Contract includes approx. 1,900yds. of 9in. Sewer, 1,060 sq. yds. of Pre-laid Flexible Foundation, Kerbed and Surfaced with Bituminous Macadam, and the Erection of 27 Flats in Three 3-storey Blocks.

Contractors should state in their application for Bills of Quantities whether (and if so, to whom) they propose to sublet any portion of the work.

Tenders to be returned to me not later than 10 a.m. on WEDNESDAY, 8th March, 1961.

W. S. DES FORGES,
Town Clerk.

16th January, 1961.

LEYLAND URBAN DISTRICT COUNCIL.

HOT-ROLLED ASPHALT SURFACING.

TENDERS are invited for the SUPPLY and LAYING by MACHINE of approximately 4,300 sq. yds. of TWO-COURSE HOT-ROLLED ASPHALT SURFACING.

Contract documents may be obtained from MR. F. D. HOWE, M.I.M.E., Engineer and Surveyor, Council Offices, Leyland, Lancs., on payment of deposit of £2 2s., refundable on receipt of a bona-fide Tender.

Contract date for receipt of Tenders, WEDNESDAY, the 8th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

W. C. F. GODSELL,
Clerk of the Council.

January, 1961.

SOUTHBOROUGH URBAN DISTRICT COUNCIL.

ROAD MATERIALS.

TENDERS are invited for the CARRYING OUT of SURFACE DRESSING to ROADS within the Urban District, and for the SUPPLY and DELIVERY of COLD EMULSION, TARRED KENT RAGSTONE, SAND, UNSCREENED BALLAST, CRUSHED SHINGLE and PORTLAND CEMENT.

Contract documents and Forms of Tenders may be obtained from the Surveyor, Council Offices, Southborough, Tunbridge Wells, Kent.

Tenders, appropriately endorsed, should be delivered to the undersigned not later than TUESDAY, 14th February, 1961.

J. R. NICHOLSON,
Clerk of the Council.

S.T. HELENS CORPORATION

WATERWORKS.

REMOVAL OF WASTE LIME.

TENDERS are invited for the REMOVAL and DISPOSAL of WASTE LIME from the Water Softening Process at BROWN EDGE WATERWORKS for the year ending 31st March, 1962.

The quantity involved is approx. 5,000 cu. yds., and the contractor will be required to load, carry away and dispose of the waste lime from lagoons in the water works grounds.

Further particulars and Forms of Tender may be obtained from the undersigned.

Tenders, sealed in the envelope provided, endorsed "Tender for Waste Lime," are to be delivered to the Town Clerk, St. Helens, on MONDAY, 27th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

E. K. ASTIN, A.M.I.C.E.,
Water Engineer.

Toliver House,
Toliver Street,
St. Helens.
17th January, 1961.

CONTRACTS

BOROUGH OF SOUTHGATE.

(A) SUPPLY OF GRANITE CHIPPINGS FOR SURFACE DRESSING.

(B) CONTRACT SURFACE DRESSING.

The SOUTHGATE BOROUGH COUNCIL invite TENDER for the FOLLOWING:

(A) The Supply of 250 tons 3-in. Granite Chippings for delivery during the month of April, 1961.

(B) For Spraying Roads with Tar plus 10 per cent. Bitumen, contract work to be carried out during the month of May, 1961.

The amount of each Tender may be obtained from the Borough Engineer and Surveyor, Town Hall, Palmers Green, N.13. No Tender will be accepted unless envelope bears the gummed label marked "Granite Chippings" or "Contract Surface Dressing" provided, and which must not have any name or mark indicating the sender.

The Council reserve the right to apportion any Tender and do not bind themselves to accept the lowest or any Tender.

Tenders must be delivered to the Town Clerk not later than 9 a.m. on TUESDAY, 7th February, 1961.

GORDON H. TAYLOR,
Town Clerk.

Town Hall,
Palmers Green, N.13.
January, 1961.

BOROUGH OF SHREWSBURY.

MAKING-UP AND WIDENING OF PRESTON STREET.

TENDERS are invited for the ABOVE ROADWORKS and accompanying Street Works, comprising the following approx. quantities: 6,400 sq. yds. of Tarmacadum Carrigeways; 3,500 sq. yds. of Flagged Footpaths; 4,300 sq. yds. of Grass Verge; 200 lin. yds. of 6in. dia. G.B.W. Foul Sewer; 400 lin. yds. of 9in. dia. Concrete S.W. Sewer; together with various ancillary works.

Forms of Tender, Specification and Conditions of Contract may be obtained from the Office of the Borough Surveyor, Guildhall, Shrewsbury, on receipt of a deposit of Two Guineas (payable to Shrewsbury Corporation), returnable on receipt of bona-fide Tenders and return of all documents.

Tenders, sealed in plain envelopes, addressed to the undersigned, and containing no mark or identification of sender, endorsed "Tender—Preston Street Roadworks," should be delivered to the undersigned not later than 10 a.m. on MONDAY, 27th February, 1961.

S. R. H. LOXTON,
Town Clerk.

Guildhall,
Shrewsbury.

CITY OF MANCHESTER.

TENDERS invited for the DEMOLITION and REMOVAL of EMPLACEMENTS and FOUNDATIONS at CHORLTON CAMP, Hough End Fields, Manchester.

Details and Form of Tender from Director of Parks, Town Hall, Manchester, must be returned to the undersigned by FRIDAY, 24th February, 1961, in a sealed envelope endorsed "Tender for Demolition and Clearance."

PHILIP B. DINGLE,
Town Clerk.

CITY OF MANCHESTER.

TENDERS invited for the SUPPLY and ERECTION of the FOLLOWING BUILDINGS in Reinforced Concrete or Structural Steel Portal Frame Construction, complete with Cladding and Foundations:

(a) Three New Barns at Moss Hall Farm.

(b) Paper Shed at Water Street Cleansing Depot.

Specifications and Drawings from the CITY ARCHITECT, P.O. Box 488, Town Hall, Manchester.

Tenders returnable by 7th FEBRUARY.

CITY OF PLYMOUTH.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING. No official Tender Forms or Specifications will be issued. The Vans are to be supplied in Primer only, and all Vehicles and Plant must be complete with Number Plates, Mirrors and Licence-holders where applicable, and conform with all current traffic regulations. A separate Tender is required for each item:

(a) One 1,000/1,200 c.c. Saloon Cars.

Item B: One 1,000/1,200 c.c. Estate Car.

Item C: Three 10/12cwt. Vans.

Item D: One 10/12cwt. Pickup.

Item E: 11 Scwt. Vans.

Item F: One 8-ton Electric Vehicle Lift.

Item G: Two 10cwt. 10cwt. Dumper, fitted with skips suitable for use with Bristol Multiblock Blockmaking Machine.

Tenders are to be received not later than 10 a.m. on MONDAY, 6th February, and no Tender will be received except in a plain sealed envelope addressed to the Town Clerk, City Engineer, Plymouth, which must bear the word "Tender," followed by the subject to which it relates, but shall not bear any name or mark indicating the sender.

The Corporation do not bind themselves to accept the lowest or any Tender.

J. ACKROYD,
City Engineer and Surveyor.

BROADSTAIRS AND ST. PETER'S URBAN DISTRICT COUNCIL.

ANNUAL TENDERS, 1961-62.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS for the 12 months commencing the 1st April, 1961:

(1) Concrete Kerbing and Edging, Paving Flags and Gully Pots.

(2) Emulsified Bitumen.

(3) Cold Asphalt.

(4) Slag Aggregate Bitumen Macadam, Slag Aggregate Tarmacadum, Slag Aggregate Tarpaving.

(5) Surface Dressing.

(6) Coloured Electric Lamps.

(8) Toilet Roll, Packets and Protective Clothline.

Forms of Tender, Specifications and Conditions for the Supply of any of the above-mentioned items may be obtained from the Engineer and Surveyor, Piermont Hall, Broadstairs.

Tenders, sealed in plain sealed envelopes, endorsed "Annual Tenders—Item No. _____" should be sent to the undersigned, by whom they should be received not later than 12 noon on SATURDAY, 11th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. C. NORRIS,
Clerk of the Council.

Piermont Hall,
Broadstairs.
January, 1961.

CONTRACTS

CENTRAL ELECTRICITY GENERATING BOARD.

SOUTHERN, SOUTH WESTERN AND SOUTH WALES REGION.

CARRIAGE OF ASH.

TENDERS are invited for the EXCAVATION, LOADING and CARRIAGE of PULVERISED FUEL ASH from the Ash Settling Ponds at CWM CFEN YDFA OF LLYNFI POWER STATION, ABERKENFYG, Glam., to the Board's Pump at CWM PFEN GLYN, N. for alternative periods of one, two or three years.

Further documents, with full particulars of the work and Conditions of Contract, may be obtained on application to the undersigned, to whom Tenders must be returned not later than 12 Noon on MONDAY, 6th February, 1961.

H. HARDMAN,

Purchasing, Contracts and Stores Officer,
Central Electricity Generating Board,
Southern, South Western and
South Wales Region,
1 Eaton Crescent,
Clifton, Bristol, 8.

WEST SUSSEX COUNTY COUNCIL.

Contractors wishing to submit a FIXED-PRICE TENDER for the undermentioned projects are invited to apply for permission to tender and submit applications to the County Architect, County Hall, Chichester, to reach him not later than 7th FEBRUARY, 1961. Contractors will be required to submit alternative Tenders for: (a) the two projects to be carried out as one contract; and (b) the two projects to be carried out as separate contracts:

- (1) Garage Extensions at the Bognor Regis William Fletcher Secondary Modern School (Job. No. S131).
- (2) New Infants' School at Bognor Regis, on the same site as (1) (Job No. 6249).

Quantities will be issued on or about 21st March, 1961.

The County Council does not bind itself to accept the lowest or any Tender, and the firm whose Tender is accepted must be prepared to enter into a contract in a form to be prepared by me.

T. C. HAYWARD,

Clerk of the County Council.

CITY OF YORK.

STREETS AND BUILDINGS COMMITTEE.

GROVES REDEVELOPMENT—CONTRACT 6.

ROADWORKS.

TENDERS are invited for the SURFACING of approx. 1,070 sq. yd. of CARRIAGeway in TARMACADAM, and the LAYING of approx. 2,740 sq. yd. of FOOTWAYS in TARMACADAM BASE-COURSE and BITUMEN MACADAM WEARING COURSE.

The General Conditions of Contract and Drawings may be inspected at, and the Specification, Bills of Quantities and Forms of Tender obtained from the Office of the undersigned on payment by cheque (made payable to York Corporation) of £2, which will be refunded upon receipt of a bona-fide Tender not subsequently withdrawn.

The Conditions of Tender shall be delivered to the undersigned in the official printed Tender envelope, sealed and endorsed "Groves Redevelopment—Contract 6," not later than Noon on MONDAY, 13th February, 1961.

The lowest or any Tender will not necessarily be accepted.

CHAS. J. MINTER,
City Engineer, Surveyor and
Planning Officer.7 St. Leonard's Place,
York.

CARDIFF CITY COUNCIL.

CITY SURVEYOR'S DEPARTMENT.

STREET LIGHTING STORES AND EQUIPMENT.

TENDERS are invited for the SUPPLY for the period ending 31st March, 1962, of the FOLLOWING STREET LIGHTING EQUIPMENT:

- (1) Concrete Lighting Columns.
- (2) Lanterns, including Lamps and Control Gear.
- (3) Solar Time Switches.

Tenders must be served on the Queen's National Roll, or submit satisfactory reasons for not being so enrolled and must have completed for at least three months immediately preceding the date of this notice with the General Conditions of the Fair Wages Resolution passed by the House of Commons on the 1st October, 1946.

Specifications, Conditions, Schedules and Forms of Tender may be obtained from the City Surveyor, City Hall, Cardiff.

Tenders will not be considered unless enclosed in plain sealed envelopes endorsed "Tender for Supply of Street Lighting Stores and Equipment," addressed to the undersigned at the City Hall, Cardiff, and sent by Registered Post, and to be received not later than the 20th FEBRUARY, 1961.

Envelopes containing Tenders must not bear any name or mark indicating the identity of the tenderer.

The City Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.City Hall,
Cardiff.

16th January, 1961.

CUCKFIELD RURAL DISTRICT COUNCIL.

CONSTRUCTION OF FOOTWAYS, ETC., AT GRANGE ROAD, CRAWLEY DOWN.

TENDERS are invited for the CONSTRUCTION of approx. 820 sq. yd. of TARMACADAM FOOTWAYS and 570 lin. yd. of Kerbing, and incidental works at the ABOVE SITE.

Specification, Bills of Quantities and Form of Tender may be obtained from A. HUTCHINGS, M.B.E., M.I.Mun.E., F.R.S.H., Engineer and Surveyor, on payment of deposit of Two Guineas, returnable on receipt of a bona-fide Tender. Drawings may be inspected at the Council Offices.

Tenders, accompanied by all documents, enclosed in a plain sealed envelope endorsed "Tender for Footways," should be addressed to the undersigned and delivered not later than 12 Noon on MONDAY, the 6th March, 1961.

The Council does not bind themselves to accept the lowest or any Tender.

J. A. CHURCHILL,
Clerk of the Council.

Rural Council Offices,
Bolton Road,
Haywards Heath,
Sussex.

17th January, 1961.

CONTRACTS

NORFOLK COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

AERIAL SURVEYS.

TENDERS are invited for the AERIAL SURVEY of approximately 10 MILES of HIGHWAY, including the Supply of Distortion-free Serial Photographs. The Survey Plans are to be a scale of 1/500th, with a guaranteed accuracy such that 95 per cent. of all detail shall be plotted within 0.5 m.m. of their correct co-ordinate position.

Copies of the Conditions of Contract, Specification, Drawings and Form of Tender may be obtained from the County Surveyor, County Offices, Thorpe Road, Norwich, NOR. 47A, on payment of a deposit of £5, which will be returned upon receipt of a bona-fide Tender not subsequently withdrawn.

Tenders should be submitted to the CLERK OF THE COUNTY COUNCIL, County Offices, Thorpe Road, Norwich, NOR. 47A, by not later than 12 Noon on 20th FEBRUARY, 1961.

County Offices,
Thorpe Road,
Norwich,
Norfolk, NOR. 47A.

BOROUGH OF ENFIELD.

PRIVATE STREET WORKS CONTRACT—STAGE II.

CREWS HILL ESTATE.

The COUNCIL invites TENDERS for the MAKING-

- (a) Orlando Avenue—length approx. 675ft.
- (b) Cypress Avenue and parts of Goli Ride and Ash Ride—length approx. 970ft.; and
- (c) Beech Avenue and parts of Goli Ride and Ash Ride—length approx. 980ft.

Roads (a) and (b) to be made up with 7in. Reinforced concrete Carrigeway and Artificial Stone Slab Footway; roads (c) to be surfaced with Machine-laid Bitumen Macadam; in road (c), the existing Concrete Carrigeway is to be surfaced with Bitumen Macadam and Artificial Stone Slab Footway provided. Granite Kerb and Street Lighting Apparatus is included for all roads.

The Specification, Bills of Quantities, Conditions of Contract and Form of Tender can be obtained from the Borough Engineer and Surveyor, H. D. PEAKE, M.Sc.(Eng.), M.I.C.E., 7 Little Park Gardens, Enfield, Middlesex, upon payment of £2 deposit, returnable upon receipt of a bona-fide Tender and/or the return of all documents. The above documents and Plan can be inspected at the Borough Engineer's Office without charge during ordinary office hours (excluding Saturdays).

Tenders must reach the undersigned not later than Noon on MONDAY, 20th February, 1961, and no Tender will be received except in a plain sealed envelope which shall be endorsed "Tender for Private Street Works—Stage II (Crews Hill Estate)," shall not bear any mark indicating the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

CYRIL E. C. R. PLATTEN,

Town Clerk.

BOROUGH OF ENFIELD.

PRIVATE STREET WORKS.

The COUNCIL invites TENDERS for the MAKING-UP of WINNINGTON ROAD (length approx. 90yd.) and STAINTON ROAD (length approx. 33yd.), in separate Contracts. Both roads are to be made up with 7in. Reinforced concrete Carrigeway and Artificial Stone Slab Footpaths. The Contract includes certain Drainage and Street Lighting Works.

The Specification, Bills of Quantities, Conditions of Contract and Form of Tender can be obtained from the Borough Engineer and Surveyor, H. D. PEAKE, M.Sc.(Eng.), M.I.C.E., 7 Little Park Gardens, Enfield, Middlesex, upon payment of £2 deposit, returnable upon receipt of a bona-fide Tender and/or the return of all documents. The above documents and Plan can be inspected at the Borough Engineer's Office without charge during ordinary office hours (excluding Saturdays).

Tenders must reach the undersigned not later than Noon, MONDAY, 20th February, 1961, and no Tender will be received except in a plain sealed envelope which shall be endorsed "Tender for Private Street Works—Winnington Road," or "Tender for Private Street Works—Stainton Road," as the case may be, and which shall bear no indication of the name of the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

CYRIL E. C. R. PLATTEN,

Town Clerk.

Public Offices,
Enfield, Middlesex.

BOROUGH OF HYDE.

RESURFACING OF DISTRICT ROADS.

TENDERS are invited for the SUPPLY and MACHINE LAVING of approximately 14,500 sq. yd. of 1in. thick COLD ASPHALT, with PRECOATED CHIPPINGS, and approximately 350 tons of COLD ASPHALT RESURFACING COURSE on DISTRICT ROADS.

Specification, Bills of Quantities and Form of Tender obtainable from the Borough Engineer and Surveyor, Municipal Buildings, Greenfield Street, Hyde.

Tenders, in plain sealed envelopes endorsed "Cold Asphalt Surfacing," to be returned not later than First Post, MONDAY, 6th February, 1961, to the undersigned.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN BINNS,

Town Clerk.

Town Hall,
Hyde,
Cheshire.

MAIDSTONE AND DISTRICT CEMETORIUM JOINT COMMITTEE.

TENDERS FOR CHAIN LINK FENCING (APPROXIMATELY 950 LIN. YD.).

The Committee invites firms specialising in the SUPPLY and ERECTION of CHAIN LINK FENCING who desire to TENDER to submit their names to the undersigned not later than Saturday, 4th February, 1961.

Forms of Tender, Conditions of Contract and general particulars will be forwarded in time for Tenders to be submitted, in the envelope supplied, not later than First Post, on the 6th MARCH, 1961.

The Committee do not bind itself to accept the lowest or any Tender.

GEO. G. LETCHFORD,

Clerk to the Committee.

Council Offices,
26 Tonbridge Road,
Maidstone.
12th January, 1961.

CONTRACTS

HERTFORDSHIRE COUNTY COUNCIL.

Applications are invited for inclusion on their list of contractors for BUILDING and MAINTENANCE WORKS, HEATING and ELECTRICAL WORKS, FENCING WORKS, etc. Tenders will normally be invited from a number of firms on the list, but the County Council reserve the right to ask for other tenders.

Application Forms from the CLERK OF THE COUNTY COUNCIL, County Hall, Hertford.

Contractors who have already applied for inclusion on the list need not apply again.

METROPOLITAN BOROUGH OF WANDSWORTH.

FLATS AT STREATHAM.

Contractors wishing to TENDER for ERECTION of 11 FLATS in Two 3-storey Blocks at HOPTON ROAD should submit names to me by 8th FEBRUARY, 1961, giving details of experience, plant and technical and supervisory staff available, together with names of two technical and two financial referees. Bill of Quantities will be issued to selected contractors in due course.

Drawings may be examined at Office of J. HEWITT MITCHELL, A.R.I.B.A., A.I.Ar.b., 140 Streatham Hill, S.W.13.

J. NOEL MARTIN,
Town Clerk.

GOLBORNE URBAN DISTRICT COUNCIL.

TENDERS FOR PLASTERING.

TENDERS are invited from plastering contractors for the INTERIOR PLASTERING and EXTERIOR RENDERING of 104 BUNGALOWS at the HESKETH MEADOW ESTATE, Lowton, near Warrington.

A Specification, Bill of Quantities and Form of Tender may be obtained on application to B. MOYLE, Engineer and Surveyor, Council Offices, Lowton, near Warrington.

Tenders, in plain sealed envelopes, endorsed "Tender for Plastering," should be received by the undersigned not later than 17th FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

F. MARLAND,
Clerk of the Council.

MAESTEG URBAN DISTRICT COUNCIL.

TENDERS FOR ANNUAL SUPPLIES.

The above-named Council invite TENDERS for the SUPPLY of the FOLLOWING MATERIALS for the year commencing 1st April, 1961, namely:

- (1) Cement.
- (2) Lime.
- (3) Paints and Varnishes.
- (4) Oils and Greases.
- (5) Stoneware Pipes.
- (6) Iron Castings.
- (7) Bricks.
- (8) Concrete Kerb and Channelling.
- (9) Cold Emulsion for Road Spraying.
- (10) Tarmacadam.
- (11) Coal.
- (12) Coke.
- (13) Limestone Chippings.
- (14) Granite Chippings.
- (15) Sand.
- (16) Surface Dressing for Roads.
- (17) Petrol.
- (18) Lorry Tyres and Tubes.
- (19) Plumbomony.
- (20) Plumbers' Fittings.
- (21) Granite Parts.
- (22) Electrical Fittings.
- (23) Timber.
- (24) Metal Spares.
- (25) Rebitrailing Lewin Brushes.
- (26) Disinfectant Fluid (Bulk).
- (27) Disinfectant Fluid (Small Tins).
- (28) Liquid Insecticide.
- (29) Gummed Rolls.
- (30) Cleaning Outfits.
- (31) Funeral Furnishing (National Assistance Act, 1948).

Conditions of Contract and Form of Tender may be obtained on application, as to No. 1 in (25) from Mr. EWIS W. JONES, Engineer and Surveyor, Council Offices, Maesteg, Glam., and as to No. (26) to (31) from D. M. THOMAS, Chief Public Health Inspector, Health Department, Talbot Street, Maesteg, Glam.

Sealed Tenders, submitted separately, on the forms supplied, and in plain sealed envelope, endorsed "Tender for _____" and must be received by the undersigned not later than SATURDAY, 18th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender, and reserves the right to accept the whole or part of any Tender submitted.

T. KING-DAVIES,
Clerk of the Council.

Talbot Street,
Maesteg, Glam.

ASHFORD (KENT) URBAN DISTRICT COUNCIL.

ROAD IMPROVEMENT A.28 AND ESTATE LAYOUT SITEWORKS.

TENDERS are invited from experienced contractors, on a Fixed-price Basis, for the FOLLOWING CONTRACTS:

- (1) Beaver Farm Housing Development—Stages V and VI.
2,800 lin. yd. of Sewers 6in. to 30in.
12,300 sq. yd. of 6in. or 8in. R.C. Road Slab with 3in. Lean-Mix Sub-base, and ancillary works.
- (2) Cobbs Wood Industrial Site, Chart Road.
500 lin. yd. of 42in. and 2,500 lin. yd. of Sewers 6in. to 24in.
7,800 sq. yd. of 6in. or 8in. R.C. Road Slab with 3in. Lean-Mix Sub-base.
3,000 sq. yd. of Cold Asphalt, Street Lighting, and ancillary works.
- (3) Chart Road Improvement, A.28 (adjacent to (2)).
2,100 sq. yd. 10in. Lean-Mix Concrete and 2in. Tarmacadam.
3,700 sq. yd. of 1in. Cold Asphalt, and ancillary works.

Specification, Bills of Quantities and Forms of Tender may be obtained from, and Drawings inspected at, the Surveyor's Office, 1 Elwick Road, Ashford, Kent.

Tenders, in the envelopes provided, must be delivered to the undersigned by not later than TUESDAY, 14th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

G. H. REDFERN,
Clerk of the Council.

Council Offices,
Church Road,
Ashford, Kent.
16th January, 1961.

CONTRACTS

COUNTY COUNCIL OF DURHAM.

TENDERS invited for SUPPLY to SCHOOLS of the FOLLOWING:—
 (1) Educational Text Books and School Library
 (2) Woodwork and Metalwork Tools.
 (3) Woodwork and Metalwork Machines.
 (4) Sweeping Compound.
 (5) Machinery to Durham Technical College.
 Forms of Tender, returnable by 13th FEBRUARY, 1961, and details from undersigned.

G. H. METCALFE,
 Director of Education.

Shire Hall,
 Durham.

16th January, 1961.

BOROUGH OF KING'S LYNN.

ANNUAL TENDERS, 1961-62.

The CORPORATION invites TENDERS for the SUPPLY and DELIVERY of the UNDERMENTIONED GOODS for 12 months ending 31st March, 1962:—

Bituminous Carpeting.
 Cement.
 Coloured Asphalt.
 Concrete Paving Slabs.
 Concrete Kerbing.
 Disinfectants.
 Electric Lamps.
 Electrical Sundries.
 Gully Gratings, Manhole Covers, etc.
 Overalls.
 Plastic White Lines.
 Rebitting and Gutter Sweeper Brushes.
 Rubber Boots.
 Salt for Snow Clearing.
 Sand, Gravel and Hoggan.
 Sanitary Dustbins.
 Tarred Granite and Slag.
 Toilet Paper.

Particulars and Form of Tender may be obtained from the Borough Engineer (Mr. H. G. RIDLER, M.I.M.E.), Clifton House, 17 Queen Street, King's Lynn.

Sealed Tenders, in the envelope provided, should be delivered to the undersigned not later than 16th FEBRUARY, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

E. W. GOCHER,
 Town Clerk.

Town Hall,
 King's Lynn.

BOROUGH OF WATFORD.

PRIVATE STREET WORKS—CONINGESBY DRIVE.

Public works contractors are invited to TENDER for the ABOVE, comprising the laying of approx. 230 lin. yd. of Precast Concrete Kerbing, approx. 250 lin. yd. of Precast Concrete Channels, approx. 245 sq. yd. of Artificial Stone Paving, the Shaping-up of the existing Carriageway and Surfacing with approx. 708 sq. yd. of Bituminous Surface, and other appurtenant works.

Applications for documents, accompanied by a deposit of £2 2s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, must be made to E. C. SAGE, Borough Engineer and Surveyor, Town Hall, Watford, and Tenders are to be submitted by 2 p.m. on WEDNESDAY, 8th February, 1961.

Contract documents will be forwarded as soon as possible after that date, and tenders will then be informed of the latest date for the receipt of Tenders.

GORDON H. HALL,
 Town Clerk.

Town Hall,
 Watford.

16th January, 1961.

CITY AND COUNTY OF NEWCASTLE UPON TYNE.

The Council are prepared to receive TENDERS for the ERECTION of a WELFARE CENTRE, with Two Flats Above, at STRATHBURN WAY, FAWDON, Newcastle upon Tyne.

Bills of Quantities and Forms of Tender may be obtained on application in writing to MESSRS. RYDER AND YATES, Architects, of Churchill House, 87 Leamond Road, Newcastle upon Tyne, where Plans and Conditions of Contract may be seen.

Sealed Tenders must reach the Town Clerk at the Town Hall, Newcastle upon Tyne, not later than 21st FEBRUARY, 1961. No Tender will be received except in the original envelope provided, which must not bear any name or mark indicating the sender.

The Committee do not bind themselves to accept the lowest or any Tender.

JOHN ATKINSON,
 Town Clerk.

Town Hall,
 Newcastle upon Tyne, 1.

19th January, 1961.

RAMSBOTTOM URBAN DISTRICT COUNCIL.

SUPPLY OF MATERIALS—1961/62.

TENDERS are invited for the SUPPLY of MATERIALS required for the year ending 31st March, 1962.

Schedule and further particulars may be obtained from the Engineer and Surveyor, Council Offices, Ramsbottom, Via Bury.

Tenders, endorsed "Materials," should be delivered in plain sealed envelopes to the undersigned not later than 9.30 a.m. on THURSDAY, 9th February, 1961.

F. BELLIS,
 Clerk of the Council.

Council Offices,
 Ramsbottom,
 Via Bury.

TORPOINT URBAN DISTRICT COUNCIL.

PRIVATE STREET WORKS.

CAREW TERRACE AND CREMLLY ROAD,

TORPOINT.

The Council invites TENDERS for the MAKING-UP of THREE SECTIONS of ROADWAY, comprising the streets known as Carew Terrace, part of Cremlly Road and the side lane at the northern end of Carew Terrace, under the Provisions of the Private Street Works Act, 1892.

Form of Tender, General Conditions, Specification and Bills of Quantities may be obtained from, and Drawings inspected at, the Office of the Surveyor to the Council, York Road, Torpoint.

Sealed Tenders, endorsed "Private Street Works—Carew Terrace, etc.," but bearing no name or mark to indicate the tenderer, must be delivered to the CLERK OF THE COUNCIL, Post Office, Torpoint, Torpoint, not later than Noon on 6th FEBRUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

Council Offices,
 York Road,
 Torpoint.

SUPPLEMENT

THE CONTRACT JOURNAL

CONTRACTS

LANCASHIRE COUNTY COUNCIL.

TENDERS will be invited from selected firms for DEVELOPMENT of PLAYING FIELDS and ERECTION of FENCING, etc., at the FOLLOWING:—
 Halewood St. Andrew's R.C. Secondary School for Boys.
 Halewood St. Andrew's Primary School.
 Halewood St. Peter's R.C. Primary School.
 Halewood County Primary School No. 1.
 Halewood County Primary School No. 2.
 Halewood County Primary School No. 3.

Applications and tenders must be received by the COUNTY ARCHITECT, P.O. Box No. 26, County Hall, Preston, not later than WEDNESDAY, February 8th, 1961, quoting Ref. A/C/I.

LANCASHIRE COUNTY COUNCIL

PLANT.

TENDERS are invited for the SUPPLY of NEW PLANT, comprising:—

GROUP "A":

Four Yorkshire Gully Emptiers, 800-gallon.
 One Yorkshire Trailer Gully Emptier, 450-gallon.
 One Johnston Sweeper-Collector.
 Two Pneumatic-tyred Road Rollers.
 One Muir-Hill Dumper, 3 cu. yd.
 One Ditch Witch Digger, 1 cu. yd.
 Two Stothert and Pitt Vibrating Rollers, 3½-ton.
 Six Stothert and Pitt Vibrating Rollers, 28in.
 One Loading Shovel, 1 cu. yd.

GROUP "B":

Four Hydrovane Mobile Compressors.
 Two 25-ton Mobile Compressors.
 Three Portable Centrifugal Pumps, 2in.
 Two Wacker Rammers, Type BSSO.
 One Warsop Breaker, Type S7.
 Four Tuke and Bell Vibrating Attachments.
 Three Portable Traffic Signals.

GROUP "C":

12 Ferguson F55 Tractors and Equipment.
 Seven Trailers, for Ferguson Tractors.
 Two Massey-Ferguson Tractor Digger Shovels, 3-in.-1."

Four Cameron-Gardener Loading Shovels for Ferguson Tractors.
 Eight Hayter Mowers.
 Three Tsove Verge Trimmers.
 Three Ferguson Mowers.

10 Allen Mowers.
 One Bruce Vertical Channel Brush for Ferguson Tractor.

GROUP "D":

One Lodele Trailer, 3-ton.
 Seven Vibrating Roller Trailers, 28in.
 Two 250-gallon Water Tank Trailers.
 12in. Pipe.

Two Vista Line White Line Machines.

Two Plastic Heater and Mixers, 80-gallon.

Tender documents are obtainable from the County Surveyor and Bridgemaster, County Hall (P.O. Box 9), Preston, on payment of a deposit of £5 (refunded on receipt of a Tender not subsequently withdrawn). Cheques must be made payable to "Lancashire County Council."

Contractors must state the group (or groups) for which they wish to submit Tenders, quoting Ref. No. 161/51, to be received by the CLERK OF THE COUNTY COUNCIL, County Hall, Preston, by 10 a.m. on SATURDAY, the 11th February, 1961.

BOROUGH OF ILFORD.

PROPOSED SPORTS PAVILION—SOUTH PARK.

TENDERS are invited for the CONSTRUCTION of a SPORTS PAVILION, South Park, Ilford.

Applications (in writing) for the Form of Tender, Bills of Quantities and Drawings should be made to the BOROUGH ENGINEER, Town Hall, Ilford, on payment of a deposit of £2 2s. which will be returned on receipt of a bona-fide Tender (not subsequently withdrawn) and all documents issued.

Conditions of Contract may be inspected at the Borough Engineer's Office during normal working hours.

Tenders, sealed in the envelope provided, endorsed "Tender for Erection of Sports Pavilion—South Park," with no mark of identification as to the tenderer, must be delivered to the TOWN CLERK, Town Hall, Ilford, not later than 4 p.m., 28th FEBRUARY, 1961.

Priced Bills of Quantities must be returned at the same time as the Tender in the special envelope provided.

The Corporation do not bind themselves to accept the lowest or any Tender.

BOROUGH OF KIDDERMINSTER.

TRADITIONAL HOUSING PROGRAMME.

TYPE "A"—CONTRACT 1.

TENDERS are invited, on a FIXED-PRICE BASIS, for ANNUAL ELECTRICAL WORKS for the ABOVE CONTRACT comprising 30 Dwellings in Pairs of semi-detached Blocks.

Specification and Form of Tender may be obtained from J. G. STEWART, A.M.I.C.E., M.I.M.E., Borough Engineer and Surveyor, 110 Mill Street, Kidderminster, and Contracts and Drawings may be inspected at the above office on payment of £2, which is returnable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders are to be delivered in the envelopes provided endorsed "A.155/13/2," to reach the undersigned not later than 12 Noon on MONDAY, 13th February, 1961.

J. L. EVANS,
 Town Clerk.

Town Hall,
 Kidderminster.
 18th January, 1961.

CITY OF NOTTINGHAM.

WATER DEPARTMENT.

BASFORD PUMPING STATION—ELECTRIC PUMPING PLANT.

TENDERS are invited for the MANUFACTURE, SUPPLY, ERECTION and SETTING UP WORK complete of CENTRIFUGAL WATER PUMPS, Electric Motors, Switchgear and other appurtenant work, at Basford Pumping Station, Nottingham.

General Conditions of Contract, Specification and Form of Tender, General Conditions, Specification and Form of Tender may be obtained from B. W. DAVIES, Engineer and General Manager, Water Department, Castle Boulevard, Nottingham, on payment of 2 Guineas, which will be refunded in full on receipt of a bona-fide Tender not afterwards withdrawn, and the return of all documents.

Tenders, enclosed in an envelope endorsed "Tender for Pumping Plant—Basford Works," to be delivered to me at the Guildhall, Nottingham, not later than Noon on FRIDAY, the 20th March, 1961.

The Corporation do not bind themselves to accept the lowest or any Tender.

T. J. OWEN,
 Town Clerk.

The Guildhall,
 Nottingham.

CONTRACTS

CONTRACTS

COUNTY BOROUGH OF SUNDERLAND.

CONTRACTS FOR MATERIALS.

TENDERS are invited for the SUPPLY of the FOLLOWING for six months commencing 1st day of April next:—

(1) Steel Wire Reinforcement for Concrete.
 (3) Earthenware Pipes, Junctions, etc.
 (4) C.I. Rainwater and Soil Goods.
 (5) Guttering.
 (7) Kerbs and Flaps.
 (14) Portland Cement.
 (17) Bitumen Macadam, Broken Stone, Sand, etc.
 (19) Gullies, Manhole Covers, Firegrates, etc.

Samples may be seen at Eden Vale Depot, Sunderland.

Specifications and Forms of Tender from the Public Works Manager, Ivor House, 13 Otto Terrace, Sunderland.

No Tender will be considered unless enclosed in a sealed envelope, marked "Tender," followed by the subject to which it relates, addressed to me, Town Hall, Sunderland, and delivered at my Office by 10 a.m. on SATURDAY, 4th February, 1961.

The Corporation do not bind themselves to accept the lowest or any Tender.

G. S. MCINTIRE,
 Town Clerk.

BOROUGH OF BARKING.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

MAYESBROOK MEADOW—LAND EAST OF MEADOW ROAD HOUSING SITE.

TENDERS, returnable by 9 a.m. on MONDAY, 27th February, are invited for the CONSTRUCTION of approx. 4,500 sq. yd. of HARDCORE and BITUMEN MACADAM CARRIAGeway and GARAGE AREAS, including the Laying of PRECAST Concrete Paving, Channel and Kerb.

The contractor will lay the Laying of approx. 90 lin. yd. of 9in. and 210 lin. yd. of 6in. Surface Water and Foul Sewers, together with the Provision of Manholes, and ancillary works.

Specification, Bill of Quantities and Form of Tender can be obtained on application to the Borough Engineer and Surveyor, Town Hall, Barking, Essex.

E. R. FARR,
 Town Clerk.

BRIERLEY HILL URBAN DISTRICT COUNCIL.

SUPPLY OF MATERIALS, HIRE OF TRANSPORT AND DIRECT LABOUR WORK, 1961-62.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and STORES and for DIRECT LABOUR WORK for the year ending 31st March, 1962:—

PART I—HIGHWAYS DEPARTMENT:

- (1) Roadstone, Slag and Chippings.
- (2) Tarmacadam and Bituminous Macadam.
- (3) Tar and Tar Compounds and Bituminous Emulsion.
- (4) Concrete Kerbs and Slabs.
- (5) Lime and Stoneware Pipes.
- (6) Cast-Iron Manhole Covers, Gully Grates and Frames.
- (7) Shovels and Picks.
- (8) Cement and Sand.
- (9) Coal.
- (10) Hired Transport.
- (11) Labour, Plant and Tools for Laying Road Materials, i.e., Kerbs, Pavings, Footpaths, etc. (materials supplied by Council).
- (12) Premixed Waterbound Macadam.

PART II—PUBLIC HEALTH DEPARTMENT:

- (1) Dustbins.

Specification and Form of Tender may be obtained on application (with stamped addressed envelope) to the Engineer and Surveyor, Civic Buildings, Brierley Hill, Birmingham, 11, indicating the items in which the inquirer is interested.

Tenders, in plain sealed envelopes, marked "Tender for Materials," to be returned to the undersigned not later than 12 o'clock Noon on WEDNESDAY, 22nd February, 1961.

The Council do not bind themselves to accept the lowest or any Tender, and reserve the right to accept any Tender in whole or in part.

HERBERT HEX,
 Clerk of the Council.

Civic Buildings,
 Brierley Hill, Staffs.
 17th January, 1961.

PRESCOT URBAN DISTRICT COUNCIL.

COUNCIL COUNCIL.

ANNUAL TENDERS FOR 1961-62.

TENDERS are invited for SUPPLYING THE FOLLOWING PLANT and MATERIALS during the year ending 31st March, 1962:—

- (1) Ashes.
- (2) Petrol, Fuel Oil and Gas Oil.
- (4) Paints.
- (5) Precast Concrete Kerbs, Channels and Flags.
- (6) Road Surfacing Materials.
- (7) Sand and Concrete Aggregates.
- (8) Self Glazed Ware, Plates and Fittings.
- (9) Transport and Rollers.

Particulars and Form of Tender may be obtained from the Engineer and Surveyor, Council Offices, Prescot.

Tenders, in plain sealed envelopes, appropriately endorsed, must be sent to the undersigned not later than SATURDAY, 18th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

F. LAMBERT,
 Clerk of the Council.

Council Offices,
 Prescot.

January, 1961.

COSELEY URBAN DISTRICT COUNCIL.

ANCHOR ROAD GARAGE WORKSHOP.

TENDERS are invited from competent contractors for the ERECTION of a STEEL-FRAMED STRUCTURE to match the existing garage, approx. size 48ft x 30ft, together with ancillary works.

Proposed Work—Anchor Road Garage, bearing no mark of identification as to the sender, should reach me not later than First Post on 10th FEBRUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

JOSEPH C. ROPER,
 Clerk of the Council.

Council House,
 Coseley.

CONTRACTS

BOROUGH OF LOUGHBOROUGH.
ROAD MATERIALS.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS required during the year ending 31st March, 1962:

- Concrete Flags and Kerb.
- Refined Bitumen Macadam, etc.
- Granite.
- Portland Cement.

Forms of Tender for all or any of the above may be obtained on application to the undersigned, and must be delivered in plain sealed envelope to ARTHUR USHER, Town Clerk, Southfields, Loughborough, no later than First Post on MONDAY, 13th February, 1961.

JOHN S. BATES, A.M.I.C.E., M.I.Mun.E., A.M.T.P.I., Borough Surveyor.

Southfields,
Loughborough.
19th January, 1961.

CITY OF DURHAM.
BATHS BRIDGE.

TENDERS are invited for the CONSTRUCTION of the ABOVE WORKS, which comprise the Removal of the existing Lattice Steel Footbridge over the River Wear between the Baths and Pelay Leazes, and the Replacement by a new Reinforced Concrete Footbridge 110ft. span by 11ft. Six weeks included in the works are for carrying out work on the river bank and the Regrading and Resurfacing of the Approach Roads.

Contractors fully experienced in bridge, road and river works should apply for particulars before 6th FEBRUARY, 1961, to MESSRS. L. G. MUSCHEL AND PARTNERS Consulting Civil Engineers, 24 Clarence Place, Newcastle upon Tyne, 2, enclosing a deposit of Five Guineas made payable to Durham Corporation, which will be returned on receipt of bona-fide Tender.

Contract Drawings and documents will be issued not later than 23rd February, 1961, and Tenders are to be delivered to the undersigned not later than 12 Noon on 20th MARCH, 1961.

No Tender will be considered which is not submitted in accordance with the instructions in the Contract documents.

The Corporation does not bind itself to accept the lowest or any Tender.

D. B. MARTIN-JONES,
Town Clerk.

Town Hall,
Durham.
18th January, 1961.

SWADLINCOTE URBAN DISTRICT COUNCIL.

ANNUAL TENDERS, 1961-62.

The Council invite TENDERS for the SUPPLY and DELIVERY of the FOLLOWING MATERIALS and STORES for the year ending on the 31st March, 1962:

Tarred Limestone and Tarred Granite. Bituminous Limestone and Bituminous Granite. Lightly Tarred Granite Chippings.

Limestone Wet-mix. Dry Stone and Chippings (Granite and Limestone). Washed Crushed Gravel. Road Tar (Type A), Including Spraying on to Roads.

Fine Asphalt. Portland Cement. Petroleum Spirit and Lubricating Oils. Dustbins. Concrete Kerbs and Paving Slabs.

Reborders of Lewin Road Sweeper Brushes. Specifications, Conditions of Contract, Form of Tender and Regulations as to tendering may be obtained from the Office of the Engineer and Surveyor, Bank House, Midland Road, Swadlincote.

Tenders should be enclosed in plain sealed envelopes endorsed "Tenders for Materials or Stores, 1961-62," and should reach the Office of the undersigned not later than the 15th FEBRUARY, 1961. The Council do not bind themselves to accept the lowest or any Tender.

C. D. HULL,
Clerk of the Council.

Clerk's Office,
Council Offices,
Swadlincote.
19th January, 1961.

FELIXSTOWE URBAN DISTRICT COUNCIL.

PRIVATE STREET IMPROVEMENT WORKS.

FIXED-PRICE TENDERS are invited from public works contractors for the MAKING-UP of the FOLLOWING PRIVATE STREET:

Part of Links Avenue (approx. 192 lin. yd.).

The works comprise Surface Water Sewerage, Kerbing and Channelling, Construction of Hardcore Carriageway with Bitumen Macadam Surface and In-situ Concrete Paving, and incidental works.

Copies of the Specification and Bill of Quantities and Form and Conditions of Tender may be obtained from the Engineer and Surveyor, Town Hall, Felixstowe, on payment of a deposit of Two Guineas which will be returned on receipt of a bona-fide Tender, accompanied by the relevant documents. The Drawings and General Conditions for Works of Civil Engineering Construction may be inspected at his Office.

Tenders, on the prescribed form, enclosed in a sealed envelope bearing no name or mark to indicate the sender, should be sent to Town Clerk for Private Streets, must be delivered to the undersigned not later than 12 Noon on TUESDAY, 14th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

R. W. HARVEY,
Clerk of the Council.

Town Hall,
Felixstowe.

NEWTOWN AND LLANDILOES RURAL DISTRICT COUNCIL.

HOUSING PROGRAMME.

The Council invites building contractors to submit TENDERS for the ERECTION of HOUSES on any or all of the FOLLOWING SITES:

Bettws—4 Houses; Carno—6 Houses; Kerry—6 Houses; Caersws—12 Houses; Manafon—2 Houses.

Applications for Tender documents should be sent to the Council's Architect, J. BRIAN COOPER, F.R.I.B.A., 38 Highfield Road, Birmingham, 15, before 4th FEBRUARY and should be accompanied by a remittance of £2 2s. which will be refunded on receipt of a bona-fide Tender or the return of the Drawings and Specifications.

GEORGE E. GRAY,
Clerk of the Council.

Town Hall,
Newtown.
18th January, 1961.

CONTRACTS

SOKE OF PETERBOROUGH COUNTY COUNCIL.

ROADS AND BRIDGES DEPARTMENT.

TENDERS are invited for the SUPPLY and DELIVERY of 30 PLACE NAME SIGNS, complete with Posts, Caps and all necessary fittings.

Full particulars and Forms of Tender may be obtained from the County Surveyor, County Offices, Bridge Street, Peterborough.

Tenders must be delivered, in the envelope provided, to the undersigned not later than MONDAY, 6th FEBRUARY, 1961.

Neither the lowest nor any Tender will necessarily be accepted.

ERIC P. SMITH,
Clerk of the County Council.

County Offices,
Bridge Street,
Peterborough.
19th January, 1961.

BOROUGH OF WIDNES.

The CORPORATION invite TENDERS for the SUPPLY of the UNDERTAKEN MATERIALS required in the Highways Department during the 12 months ending 31st March, 1962:

- Portland Cement.
- Broken Stone and Chippings.
- Tar and Bitumen (Spraying Grades).
- Castings.
- Concrete Kerbs and Flags.
- Tar and Bituminous Macadam.
- Electrical Equipment.
- Dustbins.
- Gaffs Fixtures and Mantles.

Forms of Tender, Specification and envelopes, in which the Tenders must be submitted, may be obtained from F. A. J. KITCHEN, Esq., A.M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Town Hall, Widnes. Tenders in envelope provided to be forwarded to reach the undersigned not later than 9 a.m. on THURSDAY, 16th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

FRANK HOWARTH,
Town Clerk.

Town Hall,
Widnes.
January, 1961.

BOROUGH OF WORKINGTON.

ANNUAL TENDERS, 1961-62.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING MATERIALS for the period of 12 months ending 31st March, 1962:

- Dry Limestone, Bituminous and Tarred Limestone Macadam.
- Dry Granite, Bituminous and Tarred Granite Macadam.
- Asphalt.
- Dense Tar Surfacing.
- Premixed Waterbound Macadam.
- Sand.
- Cement.
- Hollow Core Covers and Gully Gratings and Frames.
- Concrete Flags, Kerbs and Channels.
- Haulage.
- Overalls.

Specifications and Forms of Tender can be obtained from the Borough Engineer and Surveyor, "Stoneleigh," Park End Road, Workington.

Tenders, in plain sealed envelopes, endorsed "Annual Tenders, 1961-62," must be delivered to the undersigned not later than Noon on FRIDAY, 17th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

G. MCKAY PORTER,
Town Clerk.

Town Hall,
Workington.
20th January, 1961.

CITY OF MANCHESTER.

TENDERS invited for CIVIL ENGINEERING WORK in Supplying and Laying Railway Sidings for the new Abattoir at Philips Park.

Specification and Bill of Quantities from CITY ARCHITECT, P.O. Box 488, Town Hall.

Tenders returnable by 8th FEBRUARY.

CITY OF STOKE-ON-TRENT.

STREET LIGHTING.

CONVERSION OF GAS TO ELECTRIC LIGHTING—PHASE I.

ERECTION OF ALUMINIUM COLUMNS.

TENDERS are invited for the ERECTION and WIRING of STREET LIGHTING COLUMNS in the City of Stoke-on-Trent.

The work consists of the Erection Only of Class "B" Aluminium Columns with Post Top mounting Lanterns, the Provision of Cable and Earth Wire, the Fitting of Gear and Wiring complete of: 257 80-W Colour Corrected Mercury Vapour Lamps complete with Glass, Tint Switch, 850 150-W tungsten Lamps complete with Time Switch.

The General Conditions, etc., dated 1948, prepared by the Institution of Mechanical Engineers, and the Institution of Electrical Engineers, will apply to this Contract.

Specifications and Contract Documents may be seen, and Specification, Bill of Quantities, Form of Tender and full particulars obtained from the City Engineer and Surveyor, Town Hall, Stoke-on-Trent, on payment of a deposit of £2 which will be repaid to contractors who submit bona-fide Tenders.

Tenders and priced Bills of Quantities (in the separate envelopes provided) are to be delivered to the undersigned not later than 12 Noon on WEDNESDAY, 8th February, 1961.

HARRY TAYLOR,
Town Clerk.

SEVENOAKS URBAN DISTRICT COUNCIL.

BUCKHURST LANE WIDENING AND TEMPORARY CAR PARK.

TENDERS are invited for CARRYING OUT the CONSTRUCTIONAL WORK in connection with the above-named Widening and temporary Car Park.

The Form of Tender and Bill of Quantities may be obtained from the Engineer and Surveyor on payment of a deposit of £2 2s. which will be returned on receipt of a bona-fide Tender.

Tenders, in the endorsed envelope provided, should be delivered to the undersigned not later than 12 Noon on FRIDAY, the 17th February, 1961.

A. F. DAVIS,
Clerk of the Council.

Council Offices,
Argyle Road,
Sevenoaks, Kent.
January, 1961.

CONTRACTS

BOROUGH OF NEWCASTLE-UNDER-LYME.

PROPOSED WROUGHT-IRON FENCING—LOOMER ROAD CEMETERY, CHESTERTON.

TENDERS are invited for the SUPPLY and ERECTION of 320 lin. yd. of WROUGHT-IRON FENCING, 6ft. high, together with Entrance Gates and ancillary works.

Plans may be seen, and Tender documents obtained at the Office of the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffs.

Tender Forms (in duplicate) and priced Bill of Quantities must be returned to me not later than 12 Noon on MONDAY, the 6th February, 1961, in a plain sealed envelope endorsed "Tender—Loomer Road Cemetery Fencing."

C. J. MORTON,
Town Clerk.

CITY OF GLOUCESTER.

TENDERS are invited for the SUPPLY of the FOLLOWING GOODS and SERVICES during the year commencing 1st April, 1961:

- Concrete Pavings Slabs.
- Concrete Kerb and Edging.
- Granite Chippings.
- Refined Tar and Bituminous Compounds.
- Gravel and Treated Road Stone.
- Gravel and Sand.
- Motor Hauling.
- Castings.
- Dustbins.
- Protective Clothing.
- Asphalt.
- Cement.
- Petroleum Products.
- Lubricating Oils.
- Ready Mixed Concrete.

Forms of Tender may be obtained on application to the City Engineer and Surveyor, 21 Eastgate Street, Gloucester, and sealed Tenders, endorsed "Tender for Miscellaneous Materials," are to be delivered to the undersigned not later than WEDNESDAY, 8th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. G. W. BOGGIN,
Town Clerk.

CITY OF STOKE-ON-TRENT.

ROAD RESURFACING WORKS.

The CITY COUNCIL invite TENDERS from contractors who possess the necessary plant for the FOLLOWING SURFACING WORKS to ROADS in the City during the year ending 31st March, 1962:

- Heating and Planing of existing Road Surfaces.
- and Laying by Barber-Greene Machine.
- Tarmacadam Base Course.
- Bituminous Macadam Base Course.
- Bituminous Macadam Wearing Course.
- Hot Roll Asphalt Binding Course.
- Hot Rolled Asphalt Wearing Surface.
- Supplying and Laying Tarmacadam Footways (Two-coat Work).
- Spraying by Tank Pressure Sprayers.
- Spraying Bituminous Retread Emulsions by Bulk Tank Pressure Sprayers.

Specifications, Tender Forms, etc. can be obtained on application to the City Engineer and Surveyor, Town Hall, Stoke-on-Trent, and all tenders are required to abide by the Standing Orders of the City Council.

Tenders, in the envelope provided, are to be delivered to the undersigned not later than 12 Noon on SATURDAY, 4th February, 1961.

HARRY TAYLOR,
Town Clerk.

LEYLAND URBAN DISTRICT COUNCIL.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING during the period from 1st April, 1961, to 31st March, 1962:

- Tar and Bituminous Compounds.
- Filled Bitumen.
- Gravel and Bituminous Macadam.
- Granite Chippings and Crushed Gravel (Surface Dressing, Coated and Clean).
- Clinkers, Ashes and Shale.
- Rubble, Broken Stone, Stone, Gravel and Concrete Kerbs, Flags and Channels.
- Stoneware and Concrete Pipes, Tubes, Gullies and Specials.
- Iron Castings—Gully Grates, Manhole Covers.
- Plastic Compound for Traffic Lines.
- Motor Vehicle Hairs.
- Electric Lamp for Street Lighting.

Forms of Tender will be supplied by Mr. F. D. HOWE, M.I.Mun.E., Engineer and Surveyor, Council Offices, Leyland, Lancs., on application, quoting the reference numbers of the forms required.

Specified materials will be supplied bearing an name or mark indicating the sender, endorsed "Tender for Road Materials," must be received by the undersigned on or before the 25th FEBRUARY, 1961. Only Tenders on the prescribed forms will be considered.

The Council do not bind themselves to accept the lowest or any Tender.

W. C. F. GODSELL,
Clerk of the Council.

Council Offices,
Leyland, Lancs.

18th January, 1961.

THURROCK URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

LONDON-TILBURY TRUNK ROAD, A.13—SURFACE WATER DRAINAGE SCHEME—DELL HOLE, STIFFORD.

TENDERS are invited for the CONSTRUCTION of some 800 lin. yds. of 15in. dia. SEWER, including Manholes and ancillary structures.

Copies of the Specification, Bill of Quantities and Form of Tender may be obtained from the Engineer and Surveyor, Council Offices, Whitehall Lane, Grays, on payment of £2 2s. deposit which will be refunded on receipt of a bona-fide Tender.

Drawings and General Conditions of Contract may be inspected at his Office during normal office hours.

Tenders, in a plain sealed envelope endorsed "Surface Water Drainage Scheme—Dell Hole, Stifford," must be delivered to the undersigned by not later than 12 Noon on TUESDAY, the 7th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. E. POOLE,
Clerk of the Council.

Council Offices,
Whitehall Lane,
Grays.

CONTRACTS

COUNTY BOROUGH OF HASTINGS.

TENDERS are invited for the SUPPLY of MATERIALS and EXECUTION of WORK during the year commencing 1st April, 1961:-

Schedule

- (a) Paint.
- (b) Paint Brushes.
- (c) Walls and Brushes.
- (d) Dustbins.
- (e) Disinfectants.
- (f) Canvas.
- (g) Soaps.
- (h) Cleaning and Dusters.
- (i) Toilet Paper.
- (j) Tarspraying.
- (k) and (l) Coal.
- (m) Coke.
- (n) (o) Crushed Beach, Binder Gravel, Sea Sand, Builders Sand, Clinker Ash.
- (o) Tarmacadam, Bitumen Macadam, Cold Asphalt, Tack Coat.
- (p) Dry Kent Ragstone.
- (q) Cement, Stoneware Pipes, Concrete Pipes, Gully Pots.
- (r) Precast Paving Slabs and Kerbs.
- (s) Granite Kerbs.
- (t) Cast-Iron Manhole and Gully Covers and Frames.

Forms of Tender may be obtained from the Borough Engineer, 37 Wellington Square, Hastings, and must be returned to the undersigned not later than 10 a.m. on MONDAY, the 13th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

N. P. LESTER,
Town Clerk.

Town Hall,
Hastings.

COUNTY BOROUGH OF GATESHEAD.

CALDERWOOD DENE PARK.

TENDERS are invited for the CONSTRUCTION of a PARK at Calderwood Dene. The work includes Filling, Levelling, Cultivating Soil and Sowing Grass Seed over an area of approx. three acres; Construction of approx. 450 sq. yd. of Tarmacadam Paths.

Details and Form of Tender may be obtained from the Borough Engineer, Municipal Buildings, Swinburne Street, Gateshead, 8, on payment of a deposit of £2.2s. by cheque made payable to the Borough Treasurer, which will be refunded upon receipt of a bona-fide Tender and the return of all documents and Drawings supplied to them.

Tenders are to be returned to the undersigned not later than 12 Noon on MONDAY, 6th February, 1961.

C. D. JACKSON,
Town Clerk.

BOROUGH OF COLWYN BAY.

ROAD SURFACE DRESSING CONTRACT.

TENDERS are invited for the TARSspraying of approx. 115,000 sq. yd. of CARRIAGEWAY within the Borough.

Tender documents may be obtained from H. WILMAN, M.I.C.E., Borough Engineer, Whalley Range, Lansdowne Road, Colwyn Bay.

Tenders, in plain sealed envelopes endorsed "Surface Dressing Contract," must be delivered to the undersigned not later than 12 Noon on SATURDAY, 11th February, 1961.

H. E. BRAITHWAITE,
Town Clerk.

Town Hall,
Colwyn Bay.

19th January, 1961.

CITY OF HEREFORD.

REFUSE FREIGHTER.

TENDERS are invited for the SUPPLY of REFUSE COLLECTING FREIGHTER(S) having a minimum capacity of 18 cu. yds. of the compressor type, and complete in every detail.

Tenders, including for Painting and Lettering of the vehicle in approved colours, must be accompanied by a complete Specification and Illustrations. Any further particulars with regard to the requirements may be obtained from F. MARGERSON, A.M.I.C.E., M.I.M.E., City Surveyor, Town Hall, Hereford.

Tenders, endorsed "Refuse Freighters," are to be forwarded to the undersigned, in a plain sealed envelope, not later than 9 a.m. on FRIDAY, 10th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. A. WESTON,
Town Clerk.

Town Hall,
Hereford.

January, 1961.

CITY OF HEREFORD.

SUPPLY OF COMPRESSOR.

TENDERS are invited for the SUPPLY and DELIVERY of PORTABLE AIR COMPRESSOR for Roadworks.

The plant is to comprise Diesel Engine and Compressor, delivery approx. 125 cu. ft./min. at 100lb. per sq. inch, with Air Receiver, and mounted on two pneumatic-tyred wheels, painted and lettered to the Council's requirements, and complete with Air Hose and two Pneumatic Road Breakers.

Tenders, endorsed "Road Breakers," are to be forwarded to the undersigned, in a plain sealed envelope, not later than 9 a.m. on FRIDAY, 10th February, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. A. WESTON,
Town Clerk.

Town Hall,
Hereford.

January, 1961.

CITY OF CARLISLE.

MORTON ESTATE—STAGE 5—ROADS AND SEWERS.

TENDERS are invited for the ABOVE. The work comprises the Construction of Roads and Sewers (Foul and Surface Water) for Housing Estate of approx. 460 Dwellings.

Particulars from City Surveyor, 18 Fisher Street. Closing date: 20th FEBRUARY, 1961.

H. D. A. ROBERTSON,
Town Clerk.

Trewhitan,
Liskeard.
21st January, 1961.

CONTRACTS

HERTFORDSHIRE COUNTY COUNCIL.

A.S. NORTH OF REDBOURN.

CONSTRUCTION OF BRICK BOUNDARY WALL.

TENDERS are invited for the CONSTRUCTION of a 9in. BRICK WALL about 160yd. in length, maximum height 6ft. 6in. and thickness 10in.

Tender documents and Drawings may be obtained from the Office of the County Surveyor, County Hall, Hertford, on or after 25th January, 1961.

Tenders are to be returned to the Clerk of the County Council not later than 10 a.m. on 15th FEBRUARY, 1961.

The County Council are not bound to accept the lowest or any Tender.

County Hall,
Hertford.

BOROUGH OF GRANTHAM.

POST AND STRAINED WIRE FENCING—EARLFIELD ESTATE.

PRICES are invited for SUPPLYING and ERECTING approx. 4,780yd. of CONCRETE POST and STRAINED WIRE FENCING. Particulars from the undersigned. Closing date, 11th FEBRUARY, 1961.

S. L. MITCHELL,
Borough Engineer and Surveyor.

Guildhall,
Grantham.

BOROUGH OF CHORLEY.

PREPARATION OF GRASS FORECOURTS.

TENDERS are invited for the PREPARATION of 8500 sq. yd. of GRASS FORECOURTS on the EAVES LINE HOUSING SITE.

Contract documents may be obtained, and Drawings and Conditions of Contract inspected at the Office of the Borough Engineer, Town Hall, Chorley, on payment of a deposit of £2, which will be refunded after receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, endorsed "Tender—Forecourts—Eaves Lane," returnable to the undersigned not later than 21 days after the appearance of this advertisement.

ROBERT POTTER,
Town Clerk.

Town Hall,
Chorley.

26th January, 1961.

CITY OF BANGOR.

ANNUAL TENDERS.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERMENTIONED MATERIALS for a period from 1st April, 1961, to 31st March, 1962:

- (1) Stone for Macadam, Tarmacadam and Chippings.
- (2) Road Surface Dressing (Tar and Cold Emulsions).

Tenders and Contracts will have to conform with the Standing Orders of the Council.

Tenders are to be sent in plain sealed envelopes endorsed "Tenders for _____," stating the class of materials tendered.

Particulars and Form of Tender can be obtained from the Offices of the City Surveyor, Town Hall, Bangor, Caernarvonshire, and Forms of Contract and Standing Orders can also be inspected in the same office.

Tenders are to be received by the City Surveyor, Town Hall, Bangor, not later than 12 Noon on FRIDAY, 10th February, 1961.

The Council does not bind itself to accept the lowest or any Tender; and also reserves the right to accept the whole or any part of the tenders.

W. ELWIN E. JONES,
Town Clerk.

Town Hall,
Bangor, Caerns.

FRIERN BARNET URBAN DISTRICT COUNCIL.

BETHUNE RECREATION GROUND.

PROVISION OF TIP.

The Council offer TIPPING FACILITIES for approx. 3,000 cu. yd. of SUITABLE MATERIAL and invite TENDERS for SOILING AND SEEDING OR TURFING on completion of an area of approx. 2,400 sq. yd. Documents may be obtained from the Office of the Engineer and Surveyor, Town Hall, Friern Barnet, N.17.

The completed Form of Tender, in the official envelope, sealed and endorsed "Tipping and Extension to Banking—Bethune Recreation Ground," and bearing no external indication of the sender, must be returned to the undersigned not later than 10 a.m. on WEDNESDAY, 15th February, 1961.

R. S. CLOTHIER,
Clerk of the Council.

Town Hall,
N.17.

19th January, 1961.

FRIERN BARNET URBAN DISTRICT COUNCIL.

DEMOLITION OF HOSE DRYING TOWER.

TENDERS are invited for the ABOVE from contractors experienced in demolition work.

Documents may be obtained from the Engineer and Surveyor, Town Hall, Friern Barnet, N.17.

Tenders, in the envelope provided, bearing no indication of the sender, are to be delivered to the undersigned not later than 10 a.m. on TUESDAY, 7th February, 1961.

R. S. CLOTHIER,
Clerk of the Council.

Town Hall,
N.17.

19th January, 1961.

EAST CORNWALL WATER BOARD.

MENHENIOT WATER SCHEME.

FIXED-PRICE TENDERS are invited from experienced contractors for the LAYING of approx. 2,200yd. of 4in. SPUN-IRON CONCRETE LINED MAIN at Menheniot, Liskeard.

Contract documents may be obtained from the undersigned on or after 3rd February, 1961, on payment of a deposit of Two Guineas, made payable to the Board, which will be refunded on receipt of a bona-fide Tender or the return of the documents.

Tenders must be returned to the Clerk of the Board, in the envelope provided, arriving not later than the First Post on the 20th FEBRUARY, 1961.

J. R. FAIRBANK,
Engineer.

Trewhitan,

Liskeard.

21st January, 1961.

CONTRACTS

BUCKS. COUNTY COUNCIL.

HIGHWAYS AND BRIDGES COMMITTEE.

Applications are invited from persons or firms able to undertake FENCING WORKS, for inclusion on the approved list of selected contractors from whom TENDERS may subsequently be invited for the execution of individual contracts for work in lieu of that being invited by public advertisement.

Applications, containing particulars of the types of fencing contracts undertaken within the past three years, to be sent to the COUNTY SURVEYOR, County Offices, Aylesbury, not later than MONDAY, 6th February, 1961, in envelope endorsed "Fencing, H.16."

BOROUGH OF CLEETHORPES.

TO ROOFING CONTRACTORS.

The COUNCIL invite TENDERS for RE-COVERING the ROOF of the PIER PAVILION in SHEET ZINC. Specifications and General Conditions can be obtained from A. B. COOPER, A.M.Inst.C.E., Borough Engineer, Council House, Cleethorpes.

Tenders, in sealed envelope provided, must be received by the undersigned not later than Noon on MONDAY, 13th February, 1961.

G. SUTCLIFFE,
Town Clerk.

Council House,
Cleethorpes.

19th January, 1961.

BOROUGH OF HIGH WYCOMBE.

The CORPORATION invite TENDERS for the SUPPLY of FOLLOWING MATERIALS for the 12 months ending 31st March, 1962:

- (1) Ballast, Washed Sand, Building Sand, Shingle, etc.
- (2) Portland Cement.
- (3) Manhole Covers and Frames, Gully Grates and Manholes.
- (4) Granite and Limestone Tarmacadam.
- (5) Concrete Kerb, Flag Paving, etc.
- (6) Granite Chippings.
- (7) Petrol.

Schedules and Forms of Tender may be obtained on application to the Borough Engineer and Surveyor. Tenders in a plain sealed envelope, endorsed "Schedule No. _____. Annual Tenders," are to be delivered to the undersigned not later than Noon on FRIDAY, 17th February, 1961.

The Corporation do not bind themselves to accept the lowest or any Tender.

J. A. PARKINSON, M.A., A.M.I.C.E.,
Borough Engineer and Surveyor.

BOROUGH OF GRANTHAM.

ASPHALT SURFACING—LONDON ROAD.

FIXED-PRICE TENDERS are invited for LAYING 700 sq. yd. of MASTIC ASPHALT SURFACING on existing Concrete Foundation.

Contract documents obtainable from Borough Engineer, Guildhall, Grantham.

Tenders in plain sealed envelopes endorsed "Tender for Asphalt Surfacing," must be delivered to me by 10th FEBRUARY.

JOHN F. GUILE,
Town Clerk.

Guildhall,
Grantham.

CITY AND COUNTY OF NORWICH.

ANNUAL CONTRACTS, 1961-62.

TENDERS are invited for the UNDERMENTIONED MATERIALS and SERVICES for the year commencing APRIL 1st, 1961:

- (1) Bitumen Granite.
- (2) Disinfectants.
- (3) Concrete Kerbs, Flags and Edging.
- (4) Portland Cement.
- (5) Sand, Shingle, etc.
- (6) Salt Glazed Ware Pipes, Fittings, Gullies, etc.
- (7) Manhole Covers and Frames.
- (8) Scouring Brooms (Bahla).
- (9) Hot Rolled Asphalt (including Laying).
- (10) Ironmongery.
- (11) Hire of Motor Cars and Lorries.
- (12) Hard Bar Soap.
- (13) Electric Lamps.
- (14) Washing Soda.
- (15) Metal Polish.
- (16) Torch Batteries.
- (17) Toilet Rolls.
- (18) Floor Polish.
- (19) Floor Cloths.
- (20) Dusters.
- (21) Scouring Powder.
- (22) Motor Spirit, Boiler Fuel Oil, etc.
- (23) Cold Asphalt (mixing plant to be within 40-mile radius of Norwich).

Forms of Tender, Specification, etc., may be obtained from the CITY ENGINEER, City Hall, Norwich, NOR O1A, to whom Tenders, on the form supplied, and sealed in the official envelope, are to be delivered by 10 a.m. FEBRUARY 13th, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

CITY OF STOKE - ON - TRENT.

HIGHWAYS ACT, 1959.

MAKING-UP OF PRIVATE STREETS.

MOXLEY AVENUE (PART), SNEYD GREEN—CONTRACT NO. 16.

COURTWAY DRIVE (PART), SNEYD GREEN—CONTRACT NO. 17.

CHURSTON ROAD, SNEYD GREEN—CONTRACT NO. 19.

CRANLEIGH AVENUE, SNEYD GREEN—CONTRACT NO. 20.

The CORPORATION invite TENDERS for the

MAKING-UP OF THE ABOVE STREETS.

Drawings and Quantities of Contract may be seen, and Bills of Quantities and Specifications obtained from the City Surveyor's Department, Town Hall, Stoke-on-Trent, on payment of £3, which will be returned on receipt of a bona-fide Tender.

Tenders must be delivered to the Town Clerk, Town Hall, Stoke-on-Trent, in a separate envelope provided, not later than 12 Noon on WEDNESDAY, 8th February, 1961.

HARRY TAYLOR,
Town Clerk.

BEDFORDSHIRE EDUCATION COMMITTEE.

TENDERS are invited for the SUPPLY and

DELIVERY of the FOLLOWING:

- (a) Woodwork and Metalwork Tools.
- (b) Timber for Instructional Purposes.

Further particulars and Forms of Tender are obtainable from the DIRECTOR OF EDUCATION, Shire Hall, Bedford, by 11th FEBRUARY, 1961.

CONTRACTS

EAST SUSSEX COUNTY COUNCIL
PRIVATE STREET WORKS.

FIXED-PRICE TENDERS are invited for the MAKING-UP and SEWERING of ROADS at PEACEHAVEN (Contract No. 2), which include the Construction of approx. 26,500 sq. yd. of 6in. Reinforced Concrete Carriageways, 10,000 lin. yd. of Four and Surface Water Sewers of 9in. and 6in. dia., the Provision of Kerbs, Tarmacadam Footways, and other ancillary works.

The Drawings and Conditions of Contract may be inspected at the Offices of, and the Forms of Tender, Specifications and Bills of Quantity may be obtained from the undersigned on application on receipt of a deposit of £10.00, which will be returned on receipt of a bona-fide Tender and the return of all documents. Tenders (together with all documents), in a plain sealed envelope endorsed "Tender for Private Street Works (Peacehaven No. 2)," are to be delivered not later than 12 noon on TUESDAY, 21st February, 1961, addressed to J. ATKINSON, Clerk of the East Sussex County Council, County Hall, Lewes.

The Council does not bind itself to accept the lowest or any tender.

M. C. LENNEY,
County Surveyor.

County Hall
Lewes.

METROPOLITAN BOROUGH OF WANDSWORTH.

MAINTENANCE OF GARDENS.

Contractors wishing to TENDER for the MAINTENANCE of GARDENS at COUNCIL HOUSING ESTATES, total approx. area 40 acres, should submit names to me by 8th FEBRUARY, 1961, giving details of experience, plans and technical and supervisory staff, together with names of two referees and two financial referees. Tender documents will be issued to selected contractors in due course.

Specification may be examined in Borough Engineer's Department at this Office.

J. NOEL MARTIN,
Town Clerk.

Municipal Buildings,
Wandsworth, S.W.18.

BOROUGH OF COLNE.
ROAD IMPROVEMENT—KEIGHLEY ROAD,
COLNE (A.6058).

TENDERS, on a Fixed-price Basis, are invited for the ABOVE WORK, comprising Formation of Embankment requiring approx. 22,000 cu yd. of Fill, Kerbing, and Construction of Carriageway in Waterbound Macadam with Bituminous Macadam Surfacing (approx. 4,500 super. yd.), together with Drainage and Construction of ancillary Retaining Walls.

Tender documents, incorporating the Ministry of Transport Specification for Roads and Bridge Works, may be obtained from the Borough Engineer, Town Hall, Colne, Lancs, on receipt of £5 deposit (returnable on submission of a bona-fide Tender), and must be returned in a plain sealed envelope endorsed "Road Improvement—Keighley Road," to the TOWN CLERK, Town Hall, Colne, no later than 9 a.m. FRIDAY, 17th February.

BOROUGH OF GRAVESEND.

TENDERS, returnable by MONDAY, 13th February, 1961, are invited for the SUPPLY of ONE DIESEL 3-TON TIPPING TRUCK and TWO PETROL SCWT. VANS, finding old vehicles in part-exchange.

Specification and tender Forms available from BOROUGH ENGINEER AND SURVEYOR, 6 Woodville Terrace, Gravesend.

ROYAL BURGH OF RUTHERGLEN.
ERECTION OF FLATS FOR ELDERLY COUPLES AT FERNHILL, RUTHERGLEN.

The TOWN COUNCIL intend to invite TENDERS for the EXECUTION of SEVERAL WORKS in connection with the Erection of three Blocks of Two-storey Flats, comprising 24 Two-apartment Houses for Elderly Couples at Fernhill, Rutherglen.

Applications for Schedules should be made to J. C. RUSSELL, Burgh Surveyor, Town Hall Buildings, Rutherglen, by 4th FEBRUARY, 1961.

The Town Council reserve the right to make a selection from the applicants to whom Schedules will be issued, and do not bind themselves to accept the lowest or any offer.

ROBERT F. POLLOCK,
Town Clerk.

Council Chambers,
Rutherglen.
18th January, 1961.

CITY AND COUNTY OF NEWCASTLE UPON TYNE.

TENDERS, which must be submitted not later than 10 a.m. MONDAY, 6th February, 1961, are invited for the SUPPLY of the FOLLOWING:

Tarred and Bituminous Macadam (Whinstone), Tar and Bituminous Road Emulsion.

Concrete Flags and Kerb.

For particulars and forms, apply to the CITY ENGINEER, Town Hall, Newcastle upon Tyne, 1.

CITY OF WAKEFIELD D.

HUNTSMAN FOLD, FLANSHAW LANE HOUSING SCHEME—ROADS AND SEWERS.

TENDERS are invited, on a Fixed-price Basis, for the CONSTRUCTION of ROADS and SEWERS for the ABOVE SCHEME.

Drawings may be inspected at the Office of the City Engineer, Town Hall, Wakefield, from whom Bills of Quantities, Specification and Form of Tender may be obtained.

Tenders must be returned to the undersigned by WEDNESDAY, 15th February, 1961.

W. S. DES FORGES,
Town Clerk.

Town Hall,
Wakefield.

STOCKPORT CORPORATION.

SOIL SPREADING.

TENDERS invited for WORK at CASTLE FARM TIP, CHERRY TREE LANE, Stockport, comprising Levelling and Covering approx. 14,500 sq. yd. of Tip to an average depth of 9in.

Tender Form, Specification and Bill of Quantities from BOROUGH SURVEYOR, Town Hall, Stockport, to be returned sealed in envelope provided, by Noon, 13th FEBRUARY, 1961.

For Contracts received too late for classification see page 449

APPOINTMENTS VACANT

COUNTY BOROUGH OF HUDDERSFIELD.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the POSITION of SENIOR ASSISTANT ENGINEER, Grade A.P.T. IV (£1,140-£1,310).

Applicants should have practical experience on road works, preferably including a period with contractors. A knowledge of work study and membership of the Institution of Civil Engineers would be advantageous.

The appointment is superannuable and subject to medical examination. Stating age, experience, and the names of not more than three referees, should reach A. J. PERCY, M.I.C.E., Borough Engineer and Surveyor, High Street Buildings, Huddersfield, not later than 3rd FEBRUARY, 1961.

Canvassing is prohibited and will be considered a disqualification.

HARRY BANN,
Town Clerk.

Town Hall,
Huddersfield.
January, 1961.

CITY OF WORCESTER.

APPOINTMENT OF CLERK OF WORKS
(ROADS AND SEWERS).

APPLICATIONS are invited from men with considerable experience in the supervision of road and sewer works for this new appointment within A.P.T. Grade II (£815-£960).

The appointment will be on the permanent establishment, superannuable and subject to a medical examination.

Housing and accommodation will be provided, if necessary, and assistance towards removal expenses may be granted. A car allowance on a casual user's basis is available.

Applications, stating age and experience, together with the names of two referees, should be sent to the City Engineer and Surveyor, 22 Bridge Street, Worcester, by 31st JANUARY, 1961.

BERTRAM WEBSTER,
Town Clerk.

Guildhall,
Worcester.

BUCKS. COUNTY COUNCIL.
HIGHWAYS AND BRIDGES DEPARTMENT.

TRUNK ROAD, A.4—SLOUGH-MAIDENHEAD BY-PASS.

CONTRACT NO. 2.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS of the Resident Engineer's Office for supervisory work on the above contract:

(a) Senior Assistant Engineers at a salary in the range £1,200 x £50—£1,450 p.a.

(b) Assistant Engineers at a salary of £1,200 p.a.

(c) Inspectors at a salary in the range £1,000 x £50—£1,100 p.a.

(d) Laboratory Assistants at a salary in the range £1,000 x £50—£1,100 p.a.

Applicants for appointments (a) should be Corporate Members by examination of the Institution of Civil Engineers, and for appointment of Municipal Engineers should have had experience of supervising road and bridge contracts.

Applicants for appointments (b) should preferably be qualified Engineers and should have had some experience of road, bridge or other construction works.

Applicants for appointments (c) should have had some experience in civil engineering or public works, particularly in regard to roads and bridges.

Applicants for appointments (d) should preferably possess a suitable qualification and should in any case possess some knowledge and experience in laboratory work and interpretation of materials.

The appointments are temporary for a minimum period of two years, and the successful candidates will be based on Slough and will be expected to reside in the vicinity.

The appointments are subject to the Local Government Superannuation Acts, and the successful candidates will be required to pass a medical examination.

The office appointed will be required to provide a car and will be paid travelling allowance in accordance with the Council's Scale.

Applications, endorsed "Project Engineer," stating age, qualifications and experience, and the names and addresses of three persons to whom reference can be made, should be delivered to the County Surveyor, 5 New Road, Oxford, not later than 6th FEBRUARY, 1961.

APPOINTMENTS VACANT

COUNTY BOROUGH OF NEWPORT.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS in the Borough Engineer's Department:

(i) Two Engineering Assistants, Grade A.P.T. III/IV (£960-£1,310).

(ii) One Planning Assistant, Grade A.P.T.

III/IV (£960-£1,310).

The corresponding salary for each appointment will be at any point within the Grades and will depend upon experience and qualifications.

A 5-day week is in operation, and approved furniture removal expenses will, if warranted, be paid.

Applications, with copies of two recent testimonials, should reach the BOROUGH ENGINEER, Civic Centre, Newport, Mon., by 7th FEBRUARY, 1961.

HAMPSHIRE COUNTY COUNCIL.

ROADS AND BRIDGES.

ROAD FOREMAN REQUIRED by the County Surveyor's Department for work in the Alton Division, Misc. Grade IV (£625-£685), commencing salary according to qualifications and experience. A house is available near Liphook at a moderate rent.

Candidates should not be more than 45 years of age, and should have had experience in the handling of men and road construction work. A motor van will be provided and maintained by the County Council.

The post is pensionable and subject to a satisfactory medical report. In approved cases, the County Council assist with removal and separation allowances.

Alternative applications, from men preferably with some experience of road construction work, for training as Road Foreman, would be considered, starting at £10 2s. 1d. per week.

Application Forms may be obtained from the COUNTY SURVEYOR, The Castle, Winchester, and must be returned by the 7th FEBRUARY, 1961.

OXFORDSHIRE COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

PROJECT ENGINEER.

APPLICATIONS are invited for the ABOVE APPOINTMENT in I.N.C. Scale "A" (£1,565 p.a.), to supervise a contract for the construction of 3½ miles of dual carriageway trunk road to special road standards, and incorporating a site improvement in pavements designed by the Road Research Laboratory.

Applicants must be qualified Engineers who have recently been responsible for contracts of similar magnitude.

The appointment will be subject to the Local Government Superannuation Acts, and the successful candidate will be required to pass a medical examination.

The office appointed will be required to provide a car and will be paid travelling allowance in accordance with the Council's Scale.

Applications, endorsed "Project Engineer," stating age, qualifications and experience, and the names and addresses of three persons to whom reference can be made, should be delivered to the County Surveyor, 5 New Road, Oxford, not later than 6th FEBRUARY, 1961.

GERALD GALE BURKITT,
Clerk of the Council.

County Hall,
Oxford.
January, 1961.

HOLMFIRTH URBAN DISTRICT.

DEPUTY ENGINEER AND SURVEYOR.

Holmfirth Council invite APPLICATIONS for this APPOINTMENT. Application must be made in a form obtainable from the Clerk of the Council, Council Offices, Holmfirth, S.Y. 1, and including a "casual user" car allowance at minimum scale.

Salary A.P.T. Grade III for a candidate who on appointment has passed the Final Examination of the Institution of Municipal Engineers or A.P.T. II for a suitable candidate not yet qualified progressing to A.P.T. Grade III upon qualifying.

Closing date, 20th FEBRUARY, 1961.

HORNCHURCH URBAN DISTRICT COUNCIL.

APPOINTMENT OF TECHNICAL ASSISTANT—HOUSING DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENT of TECHNICAL ASSISTANT—HOUSING DEPARTMENT, at a salary in accordance with Grade A.P.T. III (£960-£1,140 per annum), with a plusage equivalent to the current London weighting.

Applicants should be qualified by suitable examination, have good experience in a senior capacity in all aspects of estate management, and have sound knowledge of the building trade, and be capable of preparing specifications, estimates and reports.

Forms of application may be obtained from me at the undermentioned address.

Completed application forms should reach me not later than SATURDAY, the 4th February, 1961.

P. G. FOX,
Council Offices,
Biller Lane,
Hornchurch,
Essex.

Clerk of the Council.

MELFORD RURAL DISTRICT COUNCIL.

GREAT CORNARD AND GLEMSFORD SEWERAGE SCHEMES.

APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the ABOVE APPOINTMENT to supervise two contracts for the construction of two sewer disposal works and approx. 16 miles of sewers and rising mains. Salary within the range £1,500-£1,750 p.a.

Applicants must be qualified Engineers with experience in setting-out, construction of reinforced concrete structures, building work, pumping machinery, sewer laying, pipework, etc.

Duration of appointment approx. 21 months, subject to one month's notice on either side. Anticipated date of commencement May, 1961.

Conditions of Service as Parts 2, 4 and 5 only of the Scheme of Conditions of Service issued by the National Joint Council for Local Authorities, Administrative, Professional, Technical and Clerical Services.

Applications, stating age, qualifications, present and previous appointments, and names of two referees, should reach the Council's Consulting Engineers, MESSRS. SANDFORD FAWCETT AND PARTNERS, 53 Victoria Street, Westminster, London, S.W.1, not later than 3rd FEBRUARY, 1961.

J. A. SHAW,
Clerk of the Council.

Council Offices,
Chilton House,
Newton Road,
Sudbury, Suffolk.
12th January, 1961.

APPOINTMENTS VACANT

WEST SUSSEX COUNTY COUNCIL
COUNTY ROADS AND BRIDGES DEPARTMENT.

APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the APPOINTMENT of a RESIDENT ENGINEER. The successful candidate should be qualified by experience to control a number of road improvement schemes whose total cost initially may be of the order of £100,000. He should be capable of setting-out the works and of exercising direct control in the case of direct labour jobs, and of supervising and measuring contract work.

A salary of up to £1,300 p.a., depending on experience, will be payable.

Application Forms may be obtained from the County Surveyor, County Hall, Chichester, and must be returned to him not later than 31st JANUARY, 1961.

T. C. HAYWARD,
Clerk of the County Council.
County Hall,
Chichester.

BOROUGH OF EPSON AND EWELL.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF SUPERINTENDENT (HIGHWAYS AND CLEANSING).

APPLICATIONS are invited for the ABOVE POST in the Borough Engineer and Surveyor's Department, at a salary scale A.P.T. III (£960-£1,140) plus London Weighting, together with an essential user car allowance.

The commencing salary within the Grade will be dependent upon the applicant's qualifications and experience.

The Council are providing housing accommodation for certain members of their staff in new three-bedroom type houses, and consideration will be given to the allocation of one of these to the successful applicant should he require it.

Conditions of the appointment and Application Forms are obtainable from COLIN COBBETT, M.I.C.E., M.R.M.E., Borough Engineer and Surveyor, Town Hall, Epsom, to whom they must be returned, together with the names and addresses of three referees, by FRIDAY, the 10th February, 1961.

EDWARD MOORE,
Town Clerk.

Town Hall,
Epsom, Surrey.
January, 1961.

BOROUGH OF GLOSSOP.
WORKS OF SEWERAGE AND SEWAGE DISPOSAL.

APPOINTMENT OF INSPECTOR.

The COUNCIL invite APPLICATIONS for the POST of INSPECTOR on the construction of a large sewage disposal works, sewers up to 30in. in dia., drainage mains, two sewage pumping stations, air reinforced concrete bridge over the River Etherow, and incidental works.

The period of this contract is two years, and the salary offered will be in accordance with Grade A.P.T. II (£815-£960 p.a.). The starting salary to be in accordance with qualified experience.

The successful applicant will work under the direction of the Resident Engineer and the Council's Consulting Engineers, MESSRS. A. H. S. WATERS AND PARTNERS, and must have had considerable experience on works of the nature described.

Applications, endorsed "Inspector," stating age, experience and qualifications, accompanied by the names of two persons to whom reference may be made, must be forwarded to the undersigned so as to reach him not later than 7th FEBRUARY, 1961.

I. ARTHUR PUGH,
Town Clerk.

Municipal Buildings,
Glossop,
Derbyshire.

RHYL URBAN DISTRICT COUNCIL.

MAIN DRAINAGE.

APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited from suitably qualified persons to supervise, under the direction of the Council's Engineer and Surveyor, the reconstruction of the main pumping station and 9in.-60in. dia. sewers.

The appointment is temporary, subject to two months' notice on either side, and the initial works contract is expected to last two years, when a further contract, if anticipated, will run consecutively.

The salary offered is £1,500 p.a., together with a travelling allowance on the essential user scale for a 1,200 c.c. car, and, if required, housing accommodation will be offered on rental basis.

Candidates should be particularly experienced in the construction of deep excavations, reinforced concrete and water-retaining structures.

Applications, endorsed "Resident Engineer," stating experience, qualifications, age, date of birth, and the names and addresses of three referees, should be forwarded to the undersigned not later than First Post on WEDNESDAY, 1st March, 1961.

A. E. EDWARDS,
Clerk of the Council.

Clerk's Office,
Council Offices,
Rhyl.

BRANDON AND BYSHOTTLES URBAN DISTRICT COUNCIL.

LOWER DEERNESS MAIN SEWERAGE SCHEME.

APPOINTMENT OF
ASSISTANT RESIDENT ENGINEER OR
CLERK OF WORKS.

APPLICATIONS are invited for the ABOVE APPOINTMENT to work as ASSISTANT to the RESIDENT ENGINEER. Candidates for the appointment are required to have had considerable experience in the laying of sewers and the construction of sewage disposal works in reinforced concrete.

The salary will be £650 to £800 per annum, according to experience, plus subsistence and motor transport allowances. Minimum duration of the work, 12 months.

Applications for the appointment, endorsed "Assistant to Resident Engineer," giving full particulars of age, experience and present appointment, should state with three, together with a copy of two testimonials or names of two referees, should be submitted to the undersigned within 14 days of the publication of this advertisement.

A. A. LUXMOORE,
Clerk of the Council.

Brownay House,
Brownay Colliery,
Durham.
17th January, 1961.

SUPPLEMENT

THE CONTRACT JOURNAL

APPOINTMENTS VACANT

CHESHIRE COUNTY COUNCIL
COUNTY SURVEYOR'S DEPARTMENT.

APPOINTMENTS VACANT

CHESHIRE COUNTY COUNCIL
COUNTY SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING SITE STAFF APPOINTMENTS in connection with the supervision of contract work on a 15-mile length of the Birmingham-Preston Motorway, between Holmes Chapel and Runcorn.

(a) Chief Resident Engineer — Scale "F" (£2,015-£2,345).

(b) Deputy Resident Engineer — Scale "C" (£1,560-£1,825).

(c) Section Engineers — Scale "C" (£1,560-£1,825).

(d) Domestic Section Engineers — Scale "A" (£1,380-£1,565).

(e) Assistant Section Engineers — A.P.T. V (£1,310-£1,480).

Applicants must be qualified Engineers and have had suitable experience in the supervision of major road constructional works.

(f) Quantity Surveyor — Scale "A" (£1,380-£1,565).

Applicants must be qualified by examination, and fully conversant with the standard method of measurement of civil engineering contracts, and have a detailed knowledge with regard to payments made on interim and final measurements.

(g) Engineering Assistants — A.P.T. II (£815-£960).

(h) Draughtsmen — A.P.T. I (£645-£815).

(i) Clerks of Works — A.P.T. III (£960-£1,140 per annum).

(j) Inspectors — A.P.T. III (£960-£1,140).

Previous experience on major civil engineering projects desirable.

(k) Soils and Materials Engineer — Scale "C" (£1,560-£1,825).

(l) Assistant Soils and Materials Engineer — Scale "A" (£1,380-£1,565).

Applicants must be suitably qualified by examination and experience.

(m) Senior Laboratory Technician — A.P.T. V (£1,310-£1,480).

(n) Laboratory Assistants (Male or Female) — Scale "A" (£810-£960).

Applicants must have had practical laboratory experience, although in regard to (n), a limited number of appointments may be made in a lower grade from applicants without previous experience but considered suitable for training.

(o) Site Clerks — A.P.T. III (£815-£960).

Previous site office experience desirable.

All the appointments are superannuable and will be for a minimum period of two years, subject to satisfactory service. Car allowances will be payable on the receipt of the majority of the engineering appointments.

Applications, giving full details of name, age, experience, present appointment and salary, previous appointments, qualifications, will be sent to the appointment sought, together with the names of two referees, must reach the COUNTY SURVEYOR, Backford Hall, near Chester, no later than the 7th FEBRUARY, 1961.

BOROUGH OF SCUNTHORPE.

14-STOREY FLATS—SCUNTHORPE.

APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the TEMPORARY APPOINTMENT of CLERK OF WORKS for the above Scheme. It is expected that the building operations will commence in March, 1961, with an anticipated contract period of 18 months.

Applicants must have appropriate experience, including reinforced concrete frame construction.

The salary will be at the rate of £200 per week, including travelling and subsistence allowance.

Applications, with full details of qualifications, past experience and age, together with the names and addresses of two referees, must reach the TOWN CLERK, Municipal Offices, 34 High Street, Scunthorpe, not later than MONDAY, 6th February, 1961.

CITY OF LEICESTER.

NEW SEWAGE DISPOSAL WORKS, WANLIP.

APPOINTMENT OF TEMPORARY INSPECTOR.

APPLICATIONS are invited from persons with suitable experience in the supervision and control of extensive reinforced concrete work to work under the direction of the Resident Engineer.

The Scheme has been designed by MESSRS. J. D. AND D. M. WATSON, Consulting Engineers, London.

The post is conditional to: (a) The Scheme of Conditions of Service for the Miscellaneous Classes of Officers at a salary of £17 per week with customary overtime as worked in civil engineering; and (b) the Local Government Superannuation Acts.

Applications, stating age, experience, and the names of two referees, to the undersigned not later than WEDNESDAY, 8th February, 1961.

JOHN L. BECKETT, M.I.C.E.,
Clerk of the Council.

Town Hall,
Leicester.

HEREFORDSHIRE WATER BOARD.

SOUTHERN AREA WATER SUPPLY SCHEME.

STAGE 2—CONTRACTS 7 AND 8.

APPOINTMENT OF TEMPORARY ASSISTANT
RESIDENT ENGINEER.

The Board invite APPLICATIONS for the ABOVE APPOINTMENT on a salary from £800 to £900 per annum according to age, qualifications and experience. An essential user car allowance not exceeding that for a 10-h.p. or 1,199 c.c. car will be paid on the National Joint Council's Scale will be paid.

The successful applicant will act as Assistant to the Resident Engineer, who is directly responsible on site for the supervision of the water scheme.

This post will be a temporary one and subject to one month's notice on either side. It is anticipated that the above two contracts will take approx. 12 months to complete.

The successful applicant will be required to supervise the construction of water mains, reinforced concrete service reservoirs and pumping stations, and must have had experience in these classes of work, particularly in the supervision of works of reinforced concrete.

Applications, stating age and experience, giving the names of three referees, must reach the Engineer and Manager at the address shown below, by 11th FEBRUARY, 1961.

H. R. PENHALL,
Clerk and Treasurer to the Board.

Reay House,
49 Bodenham Road,
Hereford.
19th January, 1961.

APPOINTMENTS VACANT

CHESHIRE COUNTY COUNCIL
COUNTY SURVEYOR'S DEPARTMENT.

APPOINTMENTS VACANT

SOMERSET COUNTY COUNCIL
COUNTY SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for a number of APPOINTMENTS in the FOLLOWING CATEGORIES in the Office of the County Surveyor, at County Hall, Taunton:

(a) Surveyor/Draughtsman within Misc. Grade I-VI (£450-£625).

(b) Draughtsman within Misc. Grade I-VI (£450-£625).

(c) Trainee Surveyor/Draughtsman, commencing within General Division (£260-£630).

Applicants for (a) should be experienced and competent at surveying and levelling, and be good Draughtsmen; (b) should be experienced and capable Draughtsmen; and (c) should be suitable for training as a Surveyor/Draughtsman.

Further particulars and Application Forms may be obtained from the undersigned at County Hall, Taunton, Somerset.

Closing date: 6th FEBRUARY, 1961.

J. H. H. WILKES,
County Surveyor.

County Hall,
Taunton.
January, 1961.

FLINTSHIRE COUNTY COUNCIL.

PRIVATE STREET WORKS ASSISTANT REQUIRED in the County Surveyor's Department, Mold. Salary £900 (£960-£1,140 per annum). Applicants should be appropriately qualified, and should have some knowledge of supervision and measuring up of small street works and in the application of the New Street Act.

Application form from the CLERK OF THE COUNTY COUNCIL, County Buildings (P.O. Box 1), Mold. Closing date, 6th FEBRUARY, 1961.

FLINTSHIRE COUNTY COUNCIL.

A CLERK OF WORKS is REQUIRED for road widening scheme at High Street, Connah's Quay (A548) for about six to nine months. Applicants should have some knowledge of supervision and measuring up of large contract drainage, and road construction works, Salary according to qualifications and experience.

Further particulars and form of application from the CLERK OF THE COUNTY COUNCIL, County Buildings (P.O. Box 1), Mold.

Closing date, 6th FEBRUARY, 1961.

NEWPORT & SOUTH MONMOUTHSHIRE WATER BOARD.

COURT FARM TREATMENT WORKS, PONTHIR, CAERLEON, MON.

APPLICATIONS are invited for the POST of SUPERINTENDENT. Salary range £1,140-£1,310 p.a., according to experience.

The post is superannuable, subject to medical examination, and a new house at reasonable rental will be available on site. The successful applicant will be required to commence on 1st May, 1961, when the works will have reached an advanced stage of construction.

This Station will be treating water both for the new Goger Steelworks and for the Water Board, and will have a capacity of 11m. gallons per day, to be substantially increased in due course. The Superintendent will be responsible for the running of the treatment plant and the electrical pumping plant, both at this Station, and the remotely controlled Llantrisant Pumping Station at the River Usk Intake. In addition, persons with considerable experience in water treatment and electrical and mechanical pumping plant, will be considered.

Applications are to be made on forms obtainable from the Engineer and Manager, Newport and South Monmouthshire Water Board, Royal Chambers, Crown Arcade, High Street, Newport, Mon., and must be returned not later than 6th FEBRUARY, 1961.

A. E. GUILD,
Engineer and Manager.

COLELAINE HARBOUR COMMISSIONERS.

RESIDENT ENGINEER OR CLERK OF WORKS.

The above Commissioners invite APPLICATIONS from persons with suitable experience in maritime works for the POST of RESIDENT ENGINEER or CLERK OF WORKS in connection with the reconstruction of a wharf in reinforced concrete, the removal of heavy rubble from the channel at the River Bann entrance, and any other works to be undertaken within a period of 12 months, which is estimated to be not less than 12 months.

The person appointed must be prepared to work under the direction of the Commissioners' Consulting Engineer.

Applicants will please state salary expected. Applications, giving age, qualifications and full details of experience, should be submitted to the undersigned before 9th FEBRUARY, 1961.

W. E. HENRY,
Secretary.

54 Stone Row,
Colegrave.

EXPERIENCED SITE ENGINEER REQUIRED by civil engineering contractors, for roadworks, drainage and sewage disposal contracts in East Suffolk. The position is permanent, with pension scheme, carrying a substantial salary, and offers exceptional prospects of advancement to higher grades in an expanding organisation.—Write in confidence, stating age, full details of experience and past employers, to Box V.333, "The Contract Journal."

ENGINEERS

Civil engineering contracting overseas. Applications for site engineering posts in large overseas contract are invited from ENGINEERS having at least five years' site experience. The work is varied and interesting, the climate pleasant. Two-year terms. Good prospects for assistant engineer with a sound technical and commercial background.—Write, stating training, experience, age and marital status, to:

BOX V.3128, "THE CONTRACT JOURNAL."

WANTED, energetic ASSISTANT WORKS MANAGER for heavy engineering works. Must be good organizer with good plans and planning experience. Modern house available. Permanent progression and pensionable post.—FRED. WATKINS (ENGINEERING), LTD., Coleford, Glos.

VAL DE TRAVERS ASPHALTE, LTD., invite applications for the following: (1) ESTIMATOR in their tarmac paving department; (2) MEASURING CLERK for general surfacing work. Both posts are in the company's London office. Permanent and pensionable. Applications in writing to the Managing Director, 21/22 Old Bailey, London, E.C.4.

APPOINTMENTS VACANT

WANTED, QUANTITY SURVEYOR for large housing contract, Newcastle area. Experience in site measurement, levelling and interim valuations necessary.—Apply, stating age, experience, and salary required, to JOHN TWINAME, LTD., Brigham, near Cockermouth, Cumberland.

SITE COST AND BONUS SURVEYOR REQUIRED by well-established contractor to prepare fully cost and bonus figures for engineering and building contracts in the North-West. Opportunities to travel at end of contracts. Permanent staff appointments with pension scheme. Salary by arrangement. Write Box V.3380, "The Contract Journal."

YOUNG MALE CLERK for head office of civil engineering contractors at Walton-on-Thames. Permanent position. Must be fully conversant with working rule agreement, H.W.P., National Insurance and P.A.Y.E. Experience on sites an advantage.—Write: SHELLABEAR PRICE, LTD., Auckland House, New Zealand Avenue, Walton-on-Thames, Surrey.

WANTED, experienced **QUANTITY SURVEYOR** for contractors' head office, Birmingham. Must have sound knowledge of site measuring, valuations, final accounts, etc.—Apply, stating age, experience, and salary required, to JOHN TWINAME, LTD., Brigham, near Cockermouth.

PLANT HIRE AND EXCAVATION

Important London plant hire and excavation contractors seek services of a **QUALIFIED PERSON** to supplement present staff. In a leading capacity and able to travel in both fields. Use of surveying instruments essential. Can provide.—Write, in confidence, giving age, past experience and salary required, to:

BOX V.3341, "THE CONTRACT JOURNAL."

CONTRACTORS' AGENTS, ENGINEERS and QUANTITY SURVEYORS REQUIRED for building and civil engineering contracts in the Midlands and North of England. Salary commensurate with experience, and bonus and superannuation schemes in operation. Permanent appointments with good prospects.—Applications, which should quote age, experience, qualifications, and salary required, to: **THOMAS CIVIL ENGINEERING, LTD.**, Ettingshall, Wolverhampton.

A GENTS: SENIOR and JUNIOR SITE ENGINEERS REQUIRED for extensive railway construction contracts at Carlisle; also **TWO DRIVERS** for Fowler Diesel Standard Gauge Locos.—Apply: **EAGRE CONSTRUCTION CO., LTD.**, East Common Lane, Scunthorpe, Lincs.

A GENTS: SENIOR and JUNIOR SITE ENGINEERS REQUIRED for railway construction contracts in various parts of the country. Must be experienced in the use of surveying instruments and capable of controlling projects. Permanent permanent, with pension scheme, and car to senior engineers.—Apply: **EAGRE CONSTRUCTION CO., LTD.**, East Common Lane, Scunthorpe.

H.M.S. CONWAY, TRAINING COLLEGE, ANGLESEY

Competent **FOREMAN JOINER** WANTED for two-year contract in agreeable surroundings. Must be experienced in reinforced concrete construction, able to control reinforcement fixing and concrete placing by tower crane.—Applications, stating age, experience and remuneration required, to:

Managing Director,
LEYLAND CONSTRUCTION CO., LTD.,
Leyland, Lancs.

ENGINEER REQUIRED for general duties in assisting the Contracts Manager—these will cover a wide field and vary from contracts supervision to assisting with estimates, setting-out and other varied works. This is an excellent opportunity for a keen Engineer to broaden his scope of prospects.—Write, with full details of age, training and experience, to the Contracts Manager, **THE WINGHAM ENGINEERING CO., LTD.**, Wingham, Canterbury, Kent.

WORKMAN DESIGNER REQUIRED. Good salary for applicant with considerable experience in this type of work.—Apply in writing, giving full details of past experience, to M. J. GLEESON (CONTRACTORS), LTD., Haredon House, London Road, North Cheam, Surrey.

GENERAL FOREMEN REQUIRED by progressive firm of civil engineering contractors for roadworks in Bedfordshire and Hertfordshire. Permanent position for right man.—Applications, stating age, experience, and salary required, to C. H. LINTON, LTD., 80 Victoria Street, St. Albans.

J. GERRARD AND SONS, LTD.

REQUIRE for work in North London area a keen and intelligent **ASSISTANT QUANTITY SURVEYOR**, willing to accept responsibility and use own initiative. Applications, stating age, experience, salary, etc., should be sent to:

I. GERRARD AND SONS, LTD.
Building and Civil Engineering Contractors,
Shakespeare House, Newport Road, Hayes, Middx.

ESTIMATOR REQUIRED for small but expanding civil engineering company in South-East. This appointment is an excellent opportunity for the right man to be No. 1 in his field, with a department, although small at present, having a sound backing. General experience in roads, sewers, sewage disposal and general civil works required.—Applications, with full details of age, training and experience, to **THE WINGHAM ENGINEERING CO., LTD.**, Wingham, Canterbury, Kent.

SENIOR AGENT REQUIRED for permanent staff of established, expanding civil engineering contractors working in Southern England. Must be fully capable of control of medium-sized contracts up to £10,000 individually, and also capable of control of smaller contracts collectively. It is hoped that the successful applicant will receive the above appointment to undertake contract manager responsibilities. Good remuneration and prospects.—Write, giving age, full details of experience, and present salary, to Box V.3374, "The Contract Journal."

BANBURY BUILDINGS REQUIRE SITE AGENTS in the London area, to supervise the erection of portable concrete buildings of various types. Must be willing to travel. These are responsible positions and carry good salaries. Expenses and vehicles supplied. Superannuation scheme available.—Apply: **PORTABLE CONCRETE BUILDINGS, LTD.**, Ironstone Works, East Adderbury, Banbury, Oxon.

APPOINTMENTS VACANT

SWIMMING POOL contractors REQUIRE fully experienced and competent **CONCRETORS/FOREMEN** for work in Home Counties and South-East.—Only qualified applicants need apply to **GILLIAMS, LTD.**, Purley, Surrey. Tel.: UPLands 9222.

TERSONS, LTD.

Have a few vacancies for first-class **AGENTS** in North London who have sound experience in managing the construction of reinforced concrete frame buildings. Permanent positions are offered with a progressive company at a good salary and bonus and excellent prospects.—Apply, in confidence, stating age, previous experience and past employers, to:

The Secretary,
TERSONS, LTD.,
Dollis Park, Finchley, London, N.3.

CLERK for plant hire section of progressive civil engineering contractors. Young man with previous experience preferred. Scope for energy and initiative. Permanent staff position available.—Apply: **PATRICK AND SON (CONTRACTORS), LTD.**, 455 Old Ford Road, E.3, stating age, experience, and salary required.

SURVEYOR/MANAGER with sound knowledge of public works REQUIRED by progressive company operating in the Midlands. Good commanding salary, with car and allowances.—Replies in confidence to the Chairman, **MIDLAND CONSTRUCTION CO. (BIRMINGHAM), LTD.**, 47-49 Lower Dartmouth Street, Birmingham, 9.

ASSISTANT ENGINEERS (vacancies £850-£1,200) REQUIRED by consulting engineers, Newcastle. Apply by letter giving design experience (water, sewerage and general), referees, etc., to Box V.3439, "The Contract Journal."

WANTED, experienced **PLANT HIRE MANAGER**. Must have good knowledge and connections with all aspects of the earthmoving contractors' industry. Excellent prospects for keen and capable man. Write Box X.3438, "The Contract Journal."

SIR ALFRED McALPINE AND SON, LTD.

REQUIRE **CIVIL ENGINEERS** for motorways. Vacancies exist for all grades from Junior Engineer to Agent. Good salaries and conditions.—Apply, in writing, to:

The Chief Engineer,
SIR ALFRED McALPINE AND SON, LTD.,
Hooton, Cheshire.

TWO SUB-AGENTS REQUIRED for section of motorway contract. Only experienced men need apply. Good salary and prospects to right men. Permanent position with company.—Write Box V.3431, "The Contract Journal."

SENIOR QUANTITY SURVEYOR REQUIRED by building and civil engineering company in their Leeds office. An excellent opportunity in an expanding company for the right man.—Apply, in writing, stating age and experience, to: **THE MITCHELL CONSTRUCTION CO. (LEEDS), LTD.**, Moorland Works, Gelderd Road, Leeds, 12.

A GENT REQUIRED by expanding firm of civil engineering contractors, to take charge of outside work on motorway contract. Only experienced men need apply. Good salary and prospects to right man. Permanent position with company. Car provided if necessary.—Write Box V.3430, "The Contract Journal."

FOREMAN FITTER REQUIRED. Permanent position open only to first-class men with previous experience in similar capacity and proved ability to organise and control. Full knowledge of petrol and diesel vehicles, and all contractors' plant, including excavators, tractors, etc., is essential.—Write, with references, giving details of previous jobs, and stating age and salary required, to F. M. SPARROW (PLANT LTD.), Oakley, Bedford.

HOWARD FARROW, LTD., REQUIRE **SITE ENGINEERS** for civil engineering contracts. Applicants must have had practical experience on sites of various types of work. Positions are permanent and offer good conditions of employment with a pension scheme and opportunities for promotion. Applications, giving full details of training, experience and qualifications, to: **FGG, HOWARD FARROW, LTD.**, C.E. Division, Highfield Road, N.W.11.

ASSISTANT ENGINEER REQUIRED by firm of building and civil engineering contractors. Excellent opportunities with an expanding company for the right man.—Apply, in writing, stating age and qualifications, to: **THE MITCHELL CONSTRUCTION CO. (LEEDS), LTD.**, Moorland Works, Gelderd Road, Leeds, 12.

CIVIL ENGINEER/AGENT REQUIRED to run a series of jobs ranging from £1,000 to £100,000 in the Birmingham area. Good salary, permanent position and good prospects for the right man.—Write, giving full details of experience, salary required, etc. All replies treated in strictest confidence.—Box V.3433, "The Contract Journal."

RUDDOCK AND MEIGHAN, LTD.

REQUIRE AGENTS, SITE ENGINEERS for civil engineering contracts near London. Good prospects, bonus and pension scheme.—Full details to:

RUDDOCK AND MEIGHAN, LTD.,
Burford House, Harrow View, Wealdstone, Middx.

THOROUGHLY experienced ESTIMATOR REQUIRED by old-established East London contractors. Good salary and prospects.—Write, stating age, experience, and salary expected, to Box V.3402, "The Contract Journal."

ESTIMATOR and SURVEYOR (two vacancies). Experienced civil and civil engineering. REQUIRED for permanent appointment. Aged 30-45. Salary according to experience. Bonus and superannuation scheme in operation. Excellent working conditions. Canteen facilities new offices opposite London Airport. Applications, giving brief summary of experience, and salary proposed, to Sales Manager, **WEST'S PILING AND CONSTRUCTION CO., LTD.**, Bath Road, Harmondsworth, West Drayton, Middlesex.

YOUNG ENGINEERS REQUIRED for site setting-out, levelling, and keeping records. Candidates must be reliable with instruments and preferably with site experience. Work is largely in London area but applicants must be willing to travel. Good prospects for the right men.—Write, giving full details, to **KIRK AND KIRK, LTD.**, Atlas Works, Putney, S.W.15.

APPOINTMENTS VACANT

SENIOR AGENT REQUIRED by firm of civil engineering contractors, Berkshire. Excellent prospects for man of proved ability, good working conditions with car provided, superannuation scheme, and annual bonus based on results.—Written applications, stating age, experience, with names of previous employers, and salary required, all in confidence, to Box V.3344, "The Contract Journal."

SIMON-CARVES, LTD.

Building and civil engineering department.—Contracts management.—**A CIVIL ENGINEER** is REQUIRED to be responsible for the management of a group of contracts each controlled by a site agent. Duties cover planning, organisation and running of these contracts from inquiry to completion and will be carried out from a fixed base. Previous experience in a similar capacity is desirable, but applications from men with successful experience as agent will be considered. Degree or A.M.I.C.E. an advantage. Generous salary, company car, pension scheme, superannuation, qualifications, previous employers and positions held should accompany applications. References will not be taken up without permission.—Reply, quoting Ref. S.C.195, to:

Contract Labour Department,
SIMON-CARVES, LTD.,
Cheadle Heath, Stockport, Cheshire.

ROADSTONE REPRESENTATIVE REQUIRED for Cheshire Salop, etc., area.—Apply in writing, for stating age, experience, and salary required, to **WILLIAM PRESTWICH AND SONS, LTD.**, Dronfield, near Sheffield.

ROOFING CONTRACTORS (Midlands) REQUIRE **CONTRACTS MANAGER**, Coventry area. Must have first-class experience of slating and tiling, and slate, shingle, pitched roofing, and organisation and supervision of labour etc.—Reply, stating age, previous experience, and salary required, to **WORMELS REGENT STREET**, Coventry. 'Phone: Coventry 20755-6-7.

WORKING MECHANICAL ENGINEER/FITTER REQUIRED to take charge of the plant on a large civil engineering contract overseas. Applicants must be fully experienced in heavy plant overhauls, preferably under overseas conditions and using local labour. They must also show evidence of considerable success in plant organisation and estimation of preventive maintenance programmes that have kept large numbers of machines working steadily on double shifts. Single quarters only available for this contract. Permanent job available to the right man. Write full details of career to Box V.3432, "The Contract Journal."

TURRIFF CONSTRUCTION CORPORATION, LTD.

REQUIRES top-grade **SITE CLERK/CASHIERS**. Age 25-45. Fully experienced building civil engineering. Long-term prospects with good conditions.—Write:

Group Personnel Manager,
TURRIFF CONSTRUCTION CORPORATION, LTD.,
Budbrooke Road, Warwick.

SITE AGENT REQUIRED for large multi-storey building contract about to commence in the London area. Applications invited from first-class and experienced men.—Write, giving full details of past experience, and salary required, to Box 1029, c/o Murray and Phelan, Ltd., Columbia House, Aldwych, W.C.2.

PLANT MANAGER/SUPERVISOR REQUIRED by building and civil engineering contractors, Surrey area. Able to control site plant essential. Write, giving details of experience, and salary required, to Box 1028, c/o Murray and Phelan, Ltd., Columbia House, Aldwych, W.C.2.

COST CLERK. Used to unit costing and monthly financial balance. Salary in accordance with qualifications and experience.—Reply, in confidence, stating salary required, to **Chief Civil Engineer, W. AND J. R. WATSON, LTD.**, Romano House, Station Road, Edinburgh, 12.

R.C. DESIGNERS and DRAUGHTSMEN REQUIRED in North Midlands. Applicants must have experience of industrial design of this nature. Permanent position with good prospects, superannuation and bonus schemes in operation.—Apply in confidence to Personnel Manager, **TARMAC CIVIL ENGINEERING, LTD.**, Ettingshall, Wolverhampton.

SURVEYORS and ENGINEERS

SURVEYS and CIVIL ENGINEERS who appreciate the interest and responsibility of setting out major engineering projects, and are free to travel, can have an excellent career with:

PRECISE SURVEYS, LTD.,
40 Victoria Avenue, Worcester.
Telephone: Worcester 27584.

PLANT HIRE MANAGER REQUIRED to take charge of and expand small established contractors' plant hire company near Plymouth. The position offers every opportunity for young and competent men with previous office experience and a good knowledge of plant and hire rates. Good commencing salary plus early increments on results. Own staff necessary.—Write Managing Director, Box V.3435, "The Contract Journal."

PLANT HIRE MANAGER REQUIRED to take charge of and expand small established contractors' plant hire company near Exeter. The position offers every opportunity for young and competent man with previous office experience and a good knowledge of plant and hire rates. Good commencing salary plus early increments on results. Own staff necessary.—Write Managing Director, Box V.3434, "The Contract Journal."

ASSISTANT OUTSIDE MANAGER REQUIRED by a medium-sized firm of builders in Somerset, to handle contracts and general outside work. Sound knowledge of all trades essential. Age not over 40. Good salary to right man.—Write, stating age, education and experience, to Box V.3408, "The Contract Journal."

SOIL MECHANICS.—Civil Engineering company requires young **SOIL MECHANICS** for road construction work in Africa. Good experience in soil test and procedure. Full time. Contracts to start with three months paid home leave. Free passage and accommodation. Please give full particulars of previous experience, and salary required.—Write Box V.3419, "The Contract Journal."

APPOINTMENTS VACANT

ASSISTANT ESTIMATOR. Experience in civil engineering works, excavation, formwork, reinforced concrete structures, etc. Good prospects. Pension and life assurance scheme. Canteen facilities available. Possible assistance in housing. — Write, stating experience and age, to Chief Estimator, Box V.3420, "The Contract Journal."

EXPERIENCED FOREMEN REQUIRED for bulk excavation works. Must be prepared to travel. Apply in writing to COFF AND SON (EXCAVATIONS), Buckhurst Hill, Ascot, Berks.

IMPERIAL CHEMICAL INDUSTRIES, LTD.

Billingham Division. REQUIRE CIVIL ENGINEERS for design and construction. Candidates in the age range 25-30 should have good honours degree in civil engineering and for the construction vacancies must have had field experience with a contracting firm. The above appointments to our senior staff are pensionable and carry attractive salaries. There is a profit-sharing scheme and assistance can be given to married individuals with regard to house purchase and removal expenses. — Candidates should write for further particulars about the pension fund, profit-sharing, removal expenses and house purchase scheme, giving brief personal details and quoting Reference S.VV1, to:

The Staff Manager,
IMPERIAL CHEMICAL INDUSTRIES, LTD.,
P.O. Box No. 1,
Billingham Division, Billingham, Co. Durham.

PLANNING and progressing building and civil engineering contracts. This vacancy calls for a training in the industry to H.N.C. or L.I.O.B. standard, with a full knowledge of B. of Q. specifications and drawings, and some site organisation to prepare progress charts and schedules for new contracts. Applications should state full age and history to WILSON LOVATT AND SONS, LTD., Clarence Street, Wolverhampton.

SENIOR QUANTITY SURVEYOR REQUIRED initially for an 18-month £1.m. road and sewer contract in S.W. Essex. — Apply FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, London, E.3.

YOUNG MAN interested in civil engineering REQUIRED to train as an Assistant Estimator. A good knowledge of figures and a determination to learn essential to secure an interesting post with excellent prospects. Good permanent position for staff pension and life assurance scheme after probationary period. — Write, stating age, salary required, and experience (if any), to Secretary, FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, London, E.3.

J. GERRARD AND SONS of Swinton REQUIRE SITE ENGINEERS for contracts in Outer London areas. With experience in setting-out and planning of building contracts. Good opportunities for training as Agents. — Apply in writing, with full particulars, and salary required, to Shakespeare House, Newport Road, Hayes, Middx. Tel.: Hayes 5276.

QUALIFIED CIVIL ENGINEERS

REQUIRED for contract supervision and design work. Good prospects, bonus and pension scheme. — Full details to:

RUDDOCK AND MEIGHAN, LTD.,
Burford House, Harrow View, Wealdstone, Middx.

ACCOUNTANT REQUIRED by South Midlands firm of civil engineering contractors. Good prospects. Pension scheme. — Write Secretary, Box V.3437, "The Contract Journal."

SENIOR ESTIMATOR REQUIRED by building contractors whose head office is near Guildford. Applicants, who should be fully experienced, are invited to send full details of age, experience and qualifications in confidence to Box Z2.523, "The Contract Journal."

EXPERIENCED FITTER REQUIRED to undertake the maintenance of fuel pumps, generators and magnetos, principally International and Ruston. Write, giving details of experience, and salary required, to J. W. CHORLEY, LTD., Wetherley, Atherton.

BUILDING CONTRACTS SUPERVISORS REQUIRED for work in the London area. Applicants, age 30-40 years, should have a minimum supervisory experience of five contracts simultaneously (ranging from £80,000 to £250,000) and be experienced in dealing with architects and sub-contractors. Good pension scheme and car allowance. Salary according to age and experience. — Apply in writing to McLAUGHLIN AND HARVEY, LTD., 24 Highbury Grove, London, N.5.

ENGINEERING ASSISTANTS, age 25-30, REQUIRED by civil engineering contractors, Dublin. Good instrument men, with experience of tunnelling and/or roadworks essential. — Give full particulars and salary expected to Box 1523, Eason's Advertising Service, Dublin.

CONSULTING CIVIL ENGINEERS

Have vacancies for ENGINEERING ASSISTANTS to assist in the design of various public health engineering works. The positions offer a wide opportunity of obtaining experience in various aspects of the profession, and after a qualifying period assistants are entitled to join the non-membership pension scheme operated by the firm. — Applicants should write, giving details of their qualifications and experience, to:

JOHN TAYLOR AND SONS,
Artillery House, Artillery Row, London, S.W.1.

CIVIL ENGINEERS REQUIRED for heavy foundation, roads and drainage construction in Scotland. Must have considerable experience in setting-out and preparation of interim and final measurements. Please state age and range of salary envisaged. — Write 1410, Wm. Porteous and Co., Glasgow.

CIVIL ENGINEER REQUIRED for construction of chemical plant on North-East Coast. Must have considerable experience in setting-out and preparation of interim and final measurements. Please state age and range of salary envisaged. — Write 1411, Wm. Porteous and Co., Glasgow.

ACCOUNTS CLERK REQUIRED. Accurate figure work essential. Experience with wages, accounts, etc., in the plant hire or contracting and civil engineering trades preferred. Permanent position to suitable applicant. — KINGSTON PLANT HIRE, LTD., Twickenham Road, Hanworth. Tel.: Feltham 40845.

APPOINTMENTS VACANT

HIGGS AND HILL, LTD., REQUIRE SENIOR SURVEYORS with experience on large sites. Knowledge of civil engineering contracts an advantage. Should be prepared to travel. **JUNIOR SURVEYOR** for head office also required. — Write, stating experience and salary required, to Crown Works, South Lambeth Road, London, S.W.8.

D. T. BULLOCK AND CO., LTD., have vacancies for ENGINEERS for setting-out and progressing work on civil engineering and building sites. Applicants should be prepared to travel to sites around the Midlands. — Apply in writing with full details of age, qualifications and experience to the Contracts Manager, D. T. Bullock and Co., Ltd., Aldridge, Staffs.

SENIOR BUILDING SURVEYORS REQUIRED by a large firm of building contractors at present engaged on several projects in London, the West Country and North-Western England. Good salaries and bonus offered. Superannuation scheme. Excellent prospects for the right men. — Apply, giving full particulars of previous experience, to the Secretary, TERTIERS, LTD., Dollis Park, Finchley, London, N.3.

BUILDERS' DRAUGHTSMAN REQUIRED for Survey engineers and contractors carrying out interesting new developments on large civil engineering structures. Permanent, progressive executive position for suitable applicant who must have thorough building or structural background. — Phone for appointment: Byfleet 45661.

A GENTS AND GENERAL FOREMEN REQUIRED by an expanding firm of civil engineering contractors for contracts commencing early spring in Southern England. — Write, giving full particulars, including age, past experience and salary required, to Box V.3457, "The Contract Journal."

RICHARD COSTAIN, LTD.

CIVIL ENGINEERING AGENT. — Applications for this appointment are invited from Civil Engineers who have had experience of the site control of civil engineering contracts. We are particularly interested in applicants between the ages of 30 and 40 who are capable of applying modern methods of control and construction. The applicant should also consider that he will be able to take advantage of the opportunities which occur for advancement and become a Contracts Manager within a few years. The successful candidate will be offered a salary of not less than £1,750 per annum. A merit bonus scheme is in operation, a car provided, and subsistence allowance paid where necessary. — Please apply to:

Personnel Manager (C/1),
RICHARD COSTAIN, LTD.,
111 Westminster Bridge Road, London, S.E.1.

CIVIL ENGINEER REQUIRED to assist in the supervision of a variety of local contracts, including setting-out and the preparation of interim accounts. Preferred age range 25-30. Progressive, permanent appointment. — Please write, giving full details of age, qualifications and experience, to General Manager, MESSENGE LAND AND MARINE CONTRACTORS LTD., Millbrook, Spital Road, Bromborough, Cheshire.

CONTRACTS MANAGER REQUIRED to control contracts throughout Southern England. Minimum experience required is the proven control as Agent of medium-sized contracts up to £100,000 individually; also smaller contracts collectively over an area. Terms and prospects commensurate with ability. — Write, giving full details of experience and present salary, also age, to Box V.3375, "The Contract Journal."

TAYLOR WOODROW CONSTRUCTION, LTD., REQUIRE a COMPRESSED AIR, SHIELD-DRIVEN TUNNEL FOREMAN for compressed air, shield-driven tunnel contract. Good wages and conditions for the right man. — Applications, which will be treated confidentially, to Personnel Department, 345 Ruislip Road, Southall, Middlesex.

CIVIL ENGINEERING

RICHARD COSTAIN, LTD., REQUIRE a number of CIVIL ENGINEERS between the ages of 25 and 30 who have site experience on civil engineering contracts of any size and type. Applicants should be interested in broadening their experience at home and overseas, and should feel that they are capable of advancement in a group which studies the development of individuals towards senior appointments. Starting salary, which will be related to experience, not less than £900. A bonus scheme is in operation, and subsistence allowances are paid where necessary. — Please apply to:

Personnel Manager (C/2),
RICHARD COSTAIN, LTD.,
111 Westminster Bridge Road, London, S.E.1.

D. T. BULLOCK AND CO., LTD., SEEK to appoint a CIVIL ENGINEER/AGENT. This progressive company, with a sound record of expansion, REQUIRES an enthusiastic and able man to take charge of small and medium-sized civil engineering and building contracts in the Midlands. The successful applicant will (a) be aged 25-30, (b) preferably have Degree, Higher National and/or A.M.I.C.E. (c) be based on Aldridge. Transport will be provided or mileage allowance in lieu. The salary will be good and prospects excellent. Although a pension scheme is in force, we are not looking for a man to whom this is a prime consideration. — Apply in confidence to Managing Director, D. T. Bullock and Co., Ltd., Aldridge, Staffs.

CIVIL ENGINEERS. — JOHN DOSSOR AND ASSOCIATES, Consulting Civil Engineers, have vacancies at Worcester and York for a number of Junior and Intermediate Grade ENGINEERING ASSISTANTS, for work on the design and preparation of schemes of storage and water supply. Bonus and contributory pension scheme. Good opportunities for promotion. Appointments will be made within the following salary ranges, depending upon age, experience, qualifications and ability: Junior up to £750 p.a.; Intermediate, £800-£1,100 p.a. Suitably qualified persons should apply in writing to the address given below, stating details of age, technical qualifications and past appointments. and whether or not, if any, with regard to location of employment. — John Dossor and Associates, 54 Broad Street, Worcester.

ROOFING CONTRACTORS (Midlands) REQUIRE CONTRACTS MANAGER, Coventry area. Must have first-class experience of slating and tiling, and all types of pitched roofing, and organisation and supervision of labour, etc. — Reply, stating age, previous experience, and salary required, to WORMELLS, Regent Street, Coventry. Phone: Coventry 20756-7.

CIVIL ENGINEER/SUB-AGENT, with good experience modern road construction in the U.K., REQUIRED urgently for contract in North Midlands. Write Box C217 LPE, 60/62 St. Martin's Lane, London, W.C.2.

APPOINTMENTS VACANT

CIVIL ENGINEER or SURVEYOR/ESTIMATOR with experience from estimate to final account, preferably with extensive experience of Post Office building work, for North Staffordshire building and civil engineering contractors. — Application in writing, stating experience, and salary required, to Box V.3400, "The Contract Journal."

SITE ENGINEERS. — M. J. GLEESON (CONTRACTORS), LTD., invite applications from men of ability for large building projects in London and Oxford. Good salaries. Positions are permanent and progressive. — Write, with full details of age, experience, and present salary, to Personnel Officer, Harewood House, London Road, North Cheam, Surrey.

CIVIL ENGINEERING OR ARCHITECTURAL ASSISTANT. — An appointment for sales technical position based on London with company manufacturing products used in building construction and marketed throughout the world. The applicant (preferably qualified) should be familiar with normal construction, be fully conversant with drawings, and have had site experience. Age 25-30. Work would include the preparation of specifications, visits to civil engineers, architects and works, and propose. Salaries according to experience and age; pension scheme available. — Write, with full details, to Box V.3478, "The Contract Journal."

ESTIMATOR, with building and general contracting experience, REQUIRED by firm of swimming pool contractors covering the whole of Britain. Good miles from head office at Battle, near Hastings (seven miles from coast on main London line). Expanding off-shore Superindendence scheme. Opportunities for intelligent man. — Write, stating experience, etc., to RUTHERFORD CONSTRUCTION CO., LTD., Battle, Sussex.

MAJOR building civil engineering concern is to appoint a CHIEF ENGINEER. Must be fully qualified civils, and preferably structural also. Must have extensive contracting experience and proven record of success on large projects. Able to control a large organisation. This is a very important position, carrying extensive salary, pension, assurance and bonus scheme. Age around 40 years. Write to Managing Director, Box W.3480, "The Contract Journal."

QUANTITY SURVEYOR, familiar with civil engineering quantities and specifications. REQUIRED for preparation of contract documents in consulting engineers' office. — Apply JOHN TAYLOR AND SONS, Artillery House, Artillery Row, London, S.W.1.

For Advertisements received too late for classification see page 449

APPOINTMENTS WANTED

PLANT OFFICE MANAGER'S Appointment, March/April, WANTED, Midlands/Yorkshire districts and site work preferred. Present contract nearing completion. — Write Box W.3338, "The Contract Journal."

WANTED, interesting and remunerative occupation for MAN experienced in the sale and design of R.C. and precast concrete. Also able to do quantities and surveys. — Write Box W.3444, "The Contract Journal."

CONTRACTS MANAGER/AGENT/CHIEF ENGINEER POST, preferably within 100 miles Bristol, SOUGHT by qualified ENGINEER, 20 years' experience in road, concrete, marine, engineering, mining and pipelaying works. Good knowledge plant, H.Q. administration, planning, tendering and control. — Write Box W.3458, "The Contract Journal."

PLANT MANAGER (40) DESIRES CHANGE to progressive company. Fully experienced in the application, repair, maintenance and control of all civil engineering and building plant. — Write Box W.3454, "The Contract Journal."

A GENT, now free, aged 46, over 20 years' experience in roads and sewers, water schemes, motorways and reservoirs. Free to travel anywhere. — Write Box W.3455, "The Contract Journal."

SENIOR AGENT, fully experienced all aspects of mainlaying, SEEKS PROGRESSIVE POST with expanding company. — Write Box W.3465, "The Contract Journal."

WELL-QUALIFIED CIVIL ENGINEER, age 47, with many years' experience heavy construction and management at home and abroad. SEEKS SENIOR POSITION with good prospects with contractor or elsewhere. — Write Box W.3475, "The Contract Journal."

CONTRACTS SUPERVISOR/AREA AGENT (37), engineer-trained, wide experience building and civil engineering, SEEKS PROGRESSIVE POST with expanding building and civil engineering contractors. — Write Box W.3477, "The Contract Journal."

COMPANY MANAGER REQUIRES FRESH APPOINTMENT similar, or as CONTRACTS or SALES MANAGER with company handling suspended ceilings or fibreboard sales, wholesale or retail. Good connections. — Write Box W.3479, "The Contract Journal."

REQUERED by April, HEAD or REGIONAL OFFICE APPOINTMENT by OFFICE MANAGER at present on major contract. Previous head office experience. Change necessary to benefit family education. — Write Box W.3483, "The Contract Journal."

WORK REQUIRED

WANTED, EXCAVATION, SITE CLEARANCE and DEMOLITION WORK. — R. BARKER (PECKHAM), LTD., New Cross 3337.

DISMANTLING and/or RE-ERCTION. — Stripping and Resheeting, T2, 81 Hangars, any type of Steelwork, and Plant, etc. Sheetings purchased, stripped and removed. Distance no object. — BEDS. DISMANTLING AND DEMOLITION CO., 3 Lurke Street, Bedford. Telephone: Bedford 66033.

SITE CLEARANCE, BULK EXCAVATION. — SIANES AND CO., LTD., Trading Estate, Slough. Telephone: Slough 20361—Ext. 4.

UPROOTING. — TREES, STUMPS, HEDGES, etc. We have the most experience in all modern equipment. — T. GLEESON, LTD., Walton, Carnforth, Lancs. Telephone: Carnforth 381 and 382.

BULK EARTHMOVING, direct contract or sub-contract. Also BULLDOZERS and SCRAPPERS for HIRE. — FRANK P. WALPOLE, LTD., 126 Wing Road, Leighton Buzzard, Beds. Leighton Buzzard 3351.

IF GRADING, SEEDING, TURFING and PLANTING form part of your CONTRACT, we will be pleased to quote you. — HOLDROP, 139 Bells Hill, Barnet. Telephone 9111.

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REMOVING AND REPAIRING THE SURFACE SPECIALISTS.—**SURFACE MAINTENANCE SERVICES, LTD.**, 124 Old Christchurch Road, Bournemouth. Tel: 24673. Branches throughout the country.

TARMACADAM AND BITUMINOUS MACADAM SURFACING WANTED.—Barber-Greene (new 1960) and full Roller range to 10 tons. HIRE, CONTRACT or SUB-CONTRACT.—D. S. O'BRIEN AND CO., Olive Mount, Birkenhead. Tel.: Birkenhead 6605.

SPECIALISED EXPLOSIVES SERVICES. U.K. and OVERSEAS MOBILE UNITS coverage on ex-service strong points, sea walls and dangerous structures, etc.—124 Old Shoreham Road, Southwick, Sussex. Tel.: Southwick 3791 or Shoreham 4193.

BULK EXCAVATION WANTED.—We have our own staff of qualified Civil Engineers, and have the following plant available ready for work: D9s, D6s, D4s, with Dozers, Scrapers and Rooters. Also Ruston Excavators with all equipments, and a fleet of new Tipping Lorries. No job is too small or too large. **SMITHS PLANT HIRE AND CONTRACTOR (CHELTENHAM), LTD.**, Southam Court, 98 Prestbury Road, Cheltenham. Glos. Tel. 52021/56419/56473.

EXCAVATION SUB-CONTRACTS. Technical staff available to analyse, programme and price contracts. Particular attention given to finish and compaction. D9s, TD18 and TD14 Scrapers, Excavators, Loading Shovels and Lorries available with competent and imaginative supervision for execution of work.—**DICK HAMPTON**, Broadview Farm, Blacknest, Alton, Hants. Tel.: Bentley 2341.

CONTROLLED EXPLOSIVES, LTD., specialise in the fragmentation of mass and reinforced concrete. Inside or outside buildings. Demolition of bridges and chimneys, gas holders, brickwork, sewage beds, engine beds, etc., and deep drilling for foundations. Particulars from 11 Church Street, Oldbury, Birmingham. Telephone: BROadwell 3117.

EARTHMOVING of any description undertaken by **SAM BOOTH, LTD.**, 75 Victoria Street, Telephone: Sullivan 3791 and Haywards Heath 1126.

SITE CLEARANCE CO., LTD., specialists in removal of trees and roots. Explosive Engineers and Demolition Contractors.—Delph Dene, Quarry Lane, Appleton, Warrington. Telephone: Stockton Heath 309.

BULK EARTHMOVING by DW21s, D9s or D8s. **STANTIAN PLANT, LTD.**, Effingham Street, Rotherham. Telephone: Rotherham 78271-2.

BULK EXCAVATIONS, any quantity quoted for. Own plant and lorries.—**COFF AND SON (EXCAVATIONS), LTD.**, Buckhurst Hill, Cheshunt, Ascot, Berks. Ascot 1026/78.

WANTED, HIRE OF OR CONTRACT WORK for modern fleet of DW21s, D9s, D8s, 15-ton Rear Dump Euclids and 30cwt Face Shovel.—Apply **BRODERICK AND RYAN, LTD.**, 421 Nottingham Road, Ilkeston, Derby. Telephone: 4381/2.

BULK EXCAVATIONS and **SITE WORKS** undertaken. Direct or on **SUB-CONTRACT** basis. Quotations given for large or small contracts anywhere.—**S. AND L. BULL BROS., LTD.**, 126A High Street, Winchester. Telephone: Winchester 2264.

SOILING, SEEDING and TURFING. Site Clearance, Excavation and Levelling Work undertaken in any part of the U.K. at competitive prices.—**GILLIAMS, PURLEY**, Uplands 9222/6.

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DIVERS and **FROGMEN** at immediate notice. **DIVING SPECIALISTS, LTD.**, Dartford 24139. Night—Farnham 2452.

REED AND MALLIK, LTD., Civil Engineering Contractors (Diving Division), Milford Manor, Salisbury, Wiltshire. Telephone 5141.

DIVING WORK REQUIRED. All classes. Competent divers. A. J. PARSOLOE, Diving Contractor, 14 Hale Avenue, Brighton, 6. Telephone (all times): Brighton 61228.

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ACTIVE PARTNERSHIP in building or sand and gravel company SOUGHT by Civil Engineer with considerable experience. Home Counties. Investment about £5,000. Write Box X.3407. "The Contract Journal."

DIRECTORSHIPS

WORKING DIRECTORSHIP offered to anyone not afraid of work, and who is capable of either taking over completely the administrative side of a small limited company, or the handling of outside contracts. The scope is unlimited, but the building is a pre-requisite. Capital required £2,000-£3,000. Location: Mid-Kent. Replies in confidence, to Box X.3442. "The Contract Journal."

CIVIL ENGINEERING.—MANAGING DIRECTOR of large firm of building and civil engineering contractors WISHES TO JOIN THE BOARD of an expanding organisation where engineering and administrative experience can be fully utilised. Write Box X.3456. "The Contract Journal."

INVENTIONS

INDUSTRIAL ENGINEERS OF REPUTE invite in strict confidence, DETAILS OF INVENTIONS, with object of manufacturing and world distribution. Write Box K.L.S.17, "The Contract Journal."

PROFESSIONAL SERVICES

FREELANCE BUILDING SURVEYOR AND CIVIL ENGINEER will be pleased to **UNDERTAKE WORK** on time or partial fee basis. Designs, Working Drawings, Details, Surveys, Property Management, Repairs, Alterations and Improvements, Estate Layouts and Services, etc. Write Box T.T.521, "The Contract Journal."

PROGRAMMES PREPARED by experts and a complete service to the contractor.—For prospectus, write to **CONTRACT TECHNICAL SERVICES**, 158 Bishopsgate, London, E.C.2.

EXPERIENCED CONTRACT MANAGER, with long and varied experience in settling civil engineering contracts, will make a presentation and negotiation of contract claims on a fee or commission basis. Write Box X.3358, "The Contract Journal."

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QUICKTHORN HEDGING PLANTS.—Strong, transplanted, fibrous rooted, 1½-2ft. high; two/three-year old, 250/- per 1,000 carriage paid for c.w.o. **BLAKEDOWN NURSERIES, LTD.**, Blakedown, Kidderminster, Worcs. Phone: Blakedown 410 and 468.

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 (a) New Road, Bagshot-Haunching. Widening and Provision of Surface Water Drainage (approx. 600 lin. yd.).
 (b) Lucas Green Road, West End, Chobham.—Alterations to Junction Layout with Ford Road.
 Documents, obtainable from County Engineer, returnable by 11th FEBRUARY, 1961, to CLERK OF THE COUNCIL, County Hall, Kingston-upon-Thames. No Tender will be received except in plain sealed envelope bearing the words "Tender for".

BOROUGH OF WATFORD.

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 37 Single Manholes.

29 Twin Manholes, together with Gullies, House Connections and other ancillary works.

Applications for documents are accompanied by a deposit of £2 2s. which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, should it be made to Mr. F. C. SAGE, Borough Engineer and Surveyor, Town Hall, Watford.

Tenders must be delivered to the undersigned, in the envelope provided, not later than 2 p.m. on MONDAY, 13th February, 1961.

GORDON H. HALL,
Town Clerk.

Town Hall,
Watford, Herts.

BOROUGH OF SLOUGH.

MYRE EJECTOR—RISING MAIN.

FIXED-PRICE TENDERS are invited for EXCAVATING, LAYING and JOINING, in shallow trench across open fields, approx. one-third of a mile of 4in. dia. SPUN-IRON PIPES to be supplied by the Council.

Tender documents and Drawings obtainable from BOROUGH ENGINEER, Town Hall, Slough, Bucks. On payment of a deposit of Two Guineas which will be refunded on receipt of a bona-fide Tender and the return of the documents.

Tenders must be returned, in the envelope provided, by Noon on THURSDAY, 23rd February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

HAVERFORDWEST RURAL DISTRICT COUNCIL.

BURTON EAST WATER EXTENSION.

TENDERS on a fixed-price basis are invited from competent civil engineering contractors for PROVIDING and LAYING approx. 1,800yd. of 2in. ASBESTOS-CEMENT PRESSURE PIPE, with VALVES, FITTINGS and adaptors, etc. Work on the site is situated 7 miles south east of Haverfordwest. Plans, Specifications and Bills of Quantities may be obtained from the Council's Engineer and Surveyor, 8-10 Picton Place, Haverfordwest. No deposit required, but Council reserves the right to charge for documents not returned. Tenders must be received by me not later than FRIDAY, 17th February, 1961. The Council does not undertake to accept the lowest or any Tender, and acceptance is subject to the approval of Welsh Office, Ministry of Housing and Local Government.

(Signed) HENRY J. DICKMAN,
Clerk of the Council.

8-10 Picton Place,
Haverfordwest,
18th January, 1961.

NORFOLK EDUCATION COMMITTEE.

WYMONDHAM COLLEGE—FOURTH AND FIFTH HOSTEL BLOCKS.

Applications are invited from contractors wishing to TENDER for the SUPPLY and INSTALLATION of BUILT-IN FURNITURE for the FOURTH and FIFTH HOSTEL BLOCKS at WYMONDHAM COLLEGE.

Specifications and Forms of Tender, which may be obtained from the undersigned, must be returned to the Clerk of the Council not later than First Post on WEDNESDAY, 22nd February, 1961.

F. LINCOLN RALPHS,
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SURFACING MANAGER REQUIRES experienced AGENT as Assistant, to control activities of several machine-laying gangs on all types of surfacing contracts. Experience of surfacing from estimating to final accounts essential.—Full details, please, in confidence, to Surfacing Manager, WILLIAM PRESTWICH AND SONS, LTD., Dronfield, near Sheffield.

COUNTY BOROUGH OF SOUTHAMPTON.

Southampton County Borough Council invites TENDERS for the FOLLOWING CONTRACT on Bills of Quantities available in mid-February.—
CONTRACT NO. 344.—1961. Fixing in Four Five-storey Blocks in Traditional Construction (Types A.5 and E.5) at Maybush Triangle. Applications for tender documents should be received by the BOROUGH ENGINEER, Civic Centre, Southampton, not later than 10 a.m. on MONDAY, 13th February, 1961.

COUNTY BOROUGH OF BOOTLE.

HOUSING COMMITTEE.

SCHEME 43.

TENDERS invited for ERECTION of 94 FLATS and MAISONNETTES, STRAND ROAD/JERSEY STREET, Bootle. Quantities from Borough Surveyor's Department, Town Hall, Bootle, 20, on deposit of Two Guineas (returnable).

Closing date for Tenders, FEBRUARY 24th, 1961.
 HAROLD PARTINGTON,
Town Clerk.

BOROUGH OF DEAL.

ANNUAL TENDERS FOR MATERIALS, 1961-62.

TENDERS are invited for the SUPPLY of the FOLLOWING:

Cold Asphalt. Manhole Covers and Crushed Grit. Man Frames. Ballast. Toilet Rolls. Sand. Armoured Gloves. Sanded Tar. Channel Brooms. Precast Concrete Kerbs. Edge Lining. and Paving Flags. Cleaning Rags.

Forms of Tender may be obtained from the Borough Treasurer, Victoria Road, Deal, Kent, and must be returned to the undersigned not later than 17th FEBRUARY, 1961.

EDGAR BRADBURY,
Town Clerk.

Municipal Offices,
Queen Street,
Deal, Kent.

BOROUGH OF SHREWSBURY.

PRIVATE STREET WORKS.

TENDERS are invited for ROADWORKS at GREENHILL AVENUE, comprising the following approx. quantities: 125 lin. yd. Concrete Kerb and Channeling, 370 sq. yd. Stone, Foundation and Bituminous Paving, 240 sq. yd. Concrete Flaggings.

Drawings may be inspected, and Form of Tender and Contract documents obtained on application to the Borough Surveyor, Guildhall, Shrewsbury, upon payment of a deposit of Two Guineas (cheques payable to Shrewsbury Corporation), refundable on receipt of a bona-fide Tender.

Tenders must be submitted in the envelope provided, endorsed "Tender for Private Street Works," sealed and addressed to the undersigned and arrive not later than 10 a.m. on 27th FEBRUARY, 1961.

S. R. H. LOXTON,
Town Clerk.

Guildhall,
Shrewsbury.

RURAL DISTRICT COUNCIL OF MALDON.

WATER MAIN RENEWALS AND EXTENSIONS.

The Council invites FIXED-PRICE TENDERS for the EXCAVATING, LAYING and PROVISION of ASBESTOS-CEMENT PRESSURE PIPES for ONE OR ANY OF THE FOLLOWING WATER MAIN RENEWALS and EXTENSIONS:

M.E.166.—690yd. lin. 4in. dia. Main—Mill Road, Mayland.
 M.E.191.—2080yd. lin. 6in. dia. Main—Stone Road, St. Lawrence.
 M.E.192.—490yd. lin. 4in. dia. Main—Imperial Avenue, Latchington.
 M.E.193.—1513yd. lin. 4in. dia. Main—Batts Road, Steeple.
 M.E.194.—1200yd. lin. 3in. dia. Main—Brick House Road, St. Lawrence.
 M.E.195.—670yd. lin. 3in. dia. Main—Roundbush Road, Purleigh.
 M.E.196.—310yd. lin. 3in. dia. Main—Chapel Road, Great Totham.

Plans, Specifications and Quantities and Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, Wantz Road, Maldon, on payment of a deposit of £2 2s., which will be refunded upon receipt of bona-fide Tenders and the return of all documents.

Tenders, in the endorsed envelope provided, must be delivered to the undersigned not later than MONDAY, 6th February, 1961.

The Council does not bind itself to accept the lowest or any Tender.

L. H. HISCOCK,
Clerk of the Council.

Council Offices,
Wantz Road,
Maldon, Essex.
20th January, 1961.

SITE ENGINEERS, Southend and Ipswich area, REQUIRED immediately for first-class road construction. Must be experienced and capable of working with minimum supervision from head office. Good salary and opportunity for young men with drive and initiative. Car provided.—Write in confidence stating age, salary and experience, to J. NUNN AND SONS, Public Works and Civil Engineering Contractors, 1 Palmerston Road, Ipswich.

GENERAL FOREMAN REQUIRED for extensive machine-laid concrete hardstandings, factory drainage and foundations. Must have knowledge of building trades. Site near Rugby.—Apply, with details of experience, and salary required, to WALTER SMITH (CONTRACTORS), Riverhead, Sevenoaks, Kent.

AN EXPERIENCED TECHNICAL SALES REPRESENTATIVE is REQUIRED for the counties of Staffordshire, Shropshire, Cheshire, Lancashire, Birmingham, Worcestershire, Herefordshire, Merioneth and Montgomery, for the sale of earthmoving and mechanical handling equipment. Exceptional prospects of advancement to higher grades in an expanding organisation.—Write in confidence, stating age, full details of experience and past employers, to Box V.3472. "The Contract Journal."

EXPERIENCED ELECTRICIAN for contractors in Kingston, Surrey, area. Qualifications preferred. Able to drive. Good knowledge of site requirements and all contractors' plant of an electrical nature. Salary £850-£1,000. Pension.—Written details in confidence to Box V.3472. "The Contract Journal."

COUNTY BOROUGH OF BIRKENHEAD.

PASSENGER TRANSPORT SERVICE.

TENDERS are invited for the SUPPLY of the FOLLOWING:

(a) 15 New Omnibuses.
 (b) 15 New Omnibus Chassis.
 (c) Engine Oils, Differential Oils, Setright Ticket Rolls.

(d) Hoses (Ferries Section).
 Form of tender and details from the GENERAL MANAGER, Laird Street Depot, Birkenhead. Closing date for Tenders, 18th FEBRUARY, 1961.

BOROUGH OF SUTTON AND CHEAM.

CENTRAL ROAD IMPROVEMENT—B.283.

TENDERS are invited for the RECONSTRUCTION and REALIGNMENT of approx. 785 lin. yd. of BIRCHWOOD, Worcester Park, entailing Breaking-out of Existing Roads and Footpath, Construction of Lean-Mix Concrete Base and Asphalt Surfacing, Kerb, Footpath, Drainage, and other ancillary works.

Tender documents may be obtained on application to C. NEEDHAM, M.I.C.E., M.I.Mun.E., A.M.I.Struct.E., Borough Engineer and Surveyor, Municipal Offices, Sutton, on payment of a deposit of £3 3s. which will be returned upon receipt of a bona-fide Tender and all documents, etc. supplied. The cheque should be made payable to the Sutton and Cheam Borough Council. Drawings may be inspected at the same address.

Tender, in the prescribed form, in the envelope provided, bearing no indication of the name of the sender and endorsed "Tender for Central Road Improvement—B.283." must be delivered at the Office of the undersigned not later than Noon on FRIDAY, the 24th February, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

A. PRIESTLEY,
Town Clerk.

Municipal Offices,
High Street,
Sutton, Surrey.
January, 1961.

CITY OF LEICESTER.

PRIVATE STREET WORKS—CONTRACT NO. 23.

TENDERS are invited from contractors experienced in work of a similar nature for the REPAIR of NINE PRIVATE STREETS.

The work comprises Re-laying Slabbed Footways and Kerbs, Constructing new Macadam Carriageways, Slabbed Footways and Kerbs, Improving existing Concrete Roads and other incidental work.

Full details and Form of Tender are available from the undersigned upon receipt of One Guinea, which will be refunded upon the submission of a bona-fide Tender.

Tenders to be returned in the official envelope, by 4.30 p.m. on THURSDAY, 16th February, 1961.

JOHN L. BECKETT, M.I.C.E.,
City Surveyor.

Town Hall,
Leicester.

CITY OF LEICESTER.

SEWAGE DISPOSAL CONTRACT NO. 4A.

TENDERS are invited for the CONSTRUCTION of the THIRD SECTION of the new SEWAGE DISPOSAL WORKS for the City situated at WANLIP. This section comprises an Inlet Culvert, Mechanical Screens, Stationary Tanks, Grit and Disintegrator Pumping Station, Pumping and Pumphouse Substructure, and various miscellaneous works.

General Conditions of Contract, Specification, Bills of Quantities and Drawings may be obtained from the Council's Consulting Engineers, Messrs. J. D. AND D. M. WATSON, M.M.I.C.E., 61 Tufton Street, Westminster, S.W.1, on payment of £10 10s. refundable only to contractors who submit bona-fide Tenders and return all documents and Drawings. Deposit cheques should be made payable to the Leicester City Council.

Tenders must be returned in the envelopes provided, and endorsed "Tender for Sewage Disposal Works (Contract No. 4A)," and delivered at the Office of the undersigned by 4.30 p.m. on FRIDAY, 17th March, 1961.

JOHN L. BECKETT, M.I.C.E.,
City Surveyor.

URBAN DISTRICT COUNCIL OF COULSDON AND PURLEY.

PLANTING ON ISLAND SITE AT OAK ROAD, KENLEY.

TENDERS are invited for the SITE PREPARATION' GROSS SEEDING PLANTING OF TREES and sundry work at the ABOVE.

Bill of Quantities, Specification and Form of Tender, prepared by H. M. Collins, A.M.I.C.E., may be obtained upon deposit of £3 3s., which will be refunded upon receipt of a bona-fide Tender. Plans and Conditions of Contract may be inspected at the Council Offices.

Sealed Tenders, in the envelope provided, and endorsed "Proposed Planting—Oaks Road, Kenley," must be delivered to the undersigned not later than First Post on THURSDAY, 9th February, 1961.

The Council does not bind themselves to accept the lowest or any Tender.

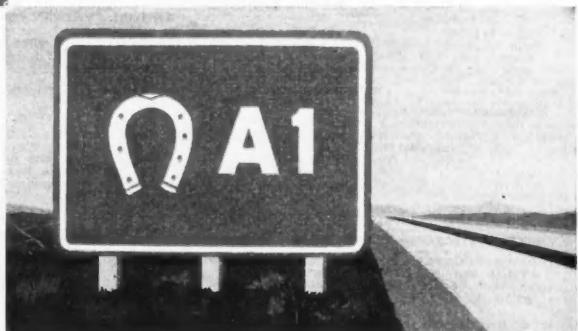
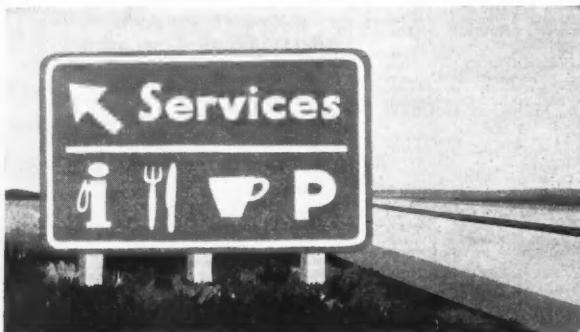
ERIC F. J. FELIX,
Clerk of the Council.

Council Offices,
Purley, Surrey.

SENIOR SITE ENGINEER REQUIRED by civil engineering contractors, for main drainage contract, Oxfordshire. Salary range £1,200-£1,300 p.a. Car support. Permanent and progressive post, with pension and life assurance scheme.—Write in confidence, stating age, full details of experience, and past employers, to Box V.3470. "The Contract Journal."

EXPERIENCED SITE ENGINEER REQUIRED by civil engineering contractors, for roadworks, drainage and sewage disposal contracts in East Suffolk. The position is permanent, with pension scheme, carrying a substantial salary, and offers exceptional prospects of advancement to higher grades in an expanding organisation.—Write in confidence, stating age, full details of experience and past employers, to Box V.3471. "The Contract Journal."

COSTING AND ORDER CLERK, 21-30, REQUIRED. Excellent knowledge of costing scheme.—Applications with full details of age, experience, and salary required, to The Manager, Public Works Dept., W. H. GAZE AND SONS, LTD., 129/139 Roehampton Vale, S.W.15.



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LEADER OF THE TEAM

THE building industry does not want a feud between architects and engineers and one may wonder why the Royal Institute of British Architects were prompted recently to embark on an exercise which held from the beginning every promise of starting one.

The Institute wrote to a number of local authorities advocating the setting up of a separate architectural department with an architect as the chief officer. The idea was to promote good architecture and efficient building by local authorities. Not surprisingly this action brought a spirited reply from the Institution of Municipal Engineers.

For their part, the Municipals contend that the proposal generally to create independent architectural departments is made not in the interests of local authorities but to enhance the status of a particular profession without due regard to the facts or the necessities of the case; that more than half the building work carried out by local authorities is of an engineering character and cannot be designed and carried out by architects alone; that undoubtedly the best method is a single department co-ordinating and carrying out all building activities, controlled by one chief officer; and that local authorities might be invited freely to consider whether the co-ordinating officer should be an engineer and surveyor or an architect.

There is much to be said for both sides. Beauty and harmony in structural design are now recognised as being worth paying for. The architect is no longer called in late in the day to "titivate" an otherwise commonplace building; he is acknowledged as an integral member of the construction team from the outset. But in many structures the engineer has an equally important part to play. He is the expert on the structural framework, and that is what architects are not, for they sub-contracted that responsibility years ago. Another point of vital importance, the engineer often knows best what is structurally practicable or economic—cost consciousness is not usually the strong point of architects, for they sub-contracted that responsibility to the quantity surveyors long since. Even when business is booming, appearance needs to be reconciled with what is financially practicable.

There are, of course, a number of chief architects who can design structures of grace and architectural scholarship that would stand the most rigorous cost analysis. But there are engineers who can do the same. The choice of leader of the department might therefore best be decided by the suitability of the candidates available, and this is what the Institution of Municipal Engineers suggest.

We cannot believe that the recent action of the R.I.B.A. has met with the unreserved approval of all members and there may yet be some interesting repercussions at 66 Portland Place.

Public Investment

M R. W. G. MITCHELL, president of the Federation of Civil Engineering Contractors, has drawn attention to the need for lifting the stop on public investment imposed last summer. He says it is a melancholy truth that many of the countries of Europe whose capital assets suffered extremely extensive war damage now have far superior road and rail networks than our own. But, adds Mr. Mitchell, Britain could rapidly catch up if only the opportunity was taken of harnessing a relatively small amount of labour to the vast potential of plant and organisation at present lying idle in the civil engineering industry.

Public investment programmes are traditionally considered by the Government in the middle of the year, and it is to be hoped indeed that the question of removing the ceiling on public investment will be high on the agenda next summer.

John Sumner's Notebook . . .

NOW that Sir Richard Coppock has announced his impending retirement—the date of which I accurately forecast nearly a year ago—the speculation on the identity of his successor increases.

Sir Richard has, I understand, been re-nominated for the general secretaryship of the N.F.B.T.O., but he will not be standing. Another nomination is that in respect of Mr. Harry Weaver, the president of the Amalgamated Union of Building Trade Workers. According to enquiries I have been making it was expected that Mr. Weaver would be returned unopposed. It now appears, however, that Mr. Stan Taylor, an executive council member of the Amalgamated Society of Woodworkers, has also been nominated and it may well be that some of the smaller unions in the Federation will be nominating candidates. Each union in the Federation has a vote equal to its affiliation and it may be interesting to my readers to know that the Amalgamated Society of Woodworkers accounts for something like one-fifth of the total membership of the N.F.B.T.O. The Amalgamated Union of Building Trade Workers has a slightly smaller membership. The question is, with whom are the smaller unions who are left, going to throw in their lot—the A.S.W. or the A.U.B.T.W.? And then, of course, there are the labourers. Naturally they will take into account the degree to which their interests are likely to be enhanced by the two candidates mentioned. It will be interesting to see just what the results of this important election will be. The nominative list closes in February. We shall know the result in March.

NO one will deny that Sir Richard, who has been the general secretary since 1922, will be a difficult man to follow. He has succeeded, throughout this monumental term as administrative head of the Federation, in looking beyond the day-to-day squabbles and disgruntlements of individual unions and in patiently forging his way towards better wages, hours and working conditions for all building workers. The improvement in their status which has been brought about over the past 40 years is nevertheless only a part measure of the success which has attended his efforts, for he has held together a group of craft and labourers' unions which might easily have been at each other's throats under a less able man. The N.F.B.T.O. chose wisely and well when they appointed him. They chose the man for the job and not the union to which he belonged. I wonder whether the descendants of those who voted in 1922 will follow the same course in 1961? As I say, time will tell, but I repeat, it is the man for the job not his union that should be kept in mind by those who will be voting.

BUILDING firms on Tyneside are meeting with competition. Not from other firms, as one might imagine, but from part-time builders who in the normal course of occupation are the personnel of Tyneside fire brigades. But it is not only the building firms who are objecting to the firemen's building activities. The building unions also object to them but are a little uncertain about what can be done about it.

Tynemouth's fire chief, Mr. W. Andrews, takes the somewhat arbitrary line that any "off-duties" his men might be doing are not impairing brigade efficiency. I wonder if this is really so, as some of the jobs being done by the firemen are of a reasonable size. One group of firemen is now so well established in the contracting business that they recently carried out a £300-plus contract job for a house conversion.

This is a free country, but it does seem a bit unfair to building firms and their operatives if the firemen can horn in on their work when there is not the remotest chance of the building firms and operatives taking on fire fighting and getting away with it.

If the building unions and the building firms are uncertain about the way to go about stopping this sort of business, I will tell them. The firms could ask some pertinent questions of the chairman of the appropriate committee of Newcastle Corporation enquiring into the identity and bona fides of the individuals or agency submitting plans for structural works for approval. The City's engineer and surveyor should insist that such works should only be put in hand by recognised firms with adequate supervisory personnel. Somebody is supplying the firemen with materials. The builders' merchants in the city might very well consider supporting the genuine building firms in this. But while the building unions hold a strong key in that they could bring pressure on the appropriate corporation committee responsible for the fire brigade by calling token strikes on all corporation contracts, a device that has been mentioned to me, I hope that they will have better sense than to use it. Instead I think they should join forces with the building firms in pointing out to the firemen, and there are various effective ways of doing this, that they are paid by ratepayers and taxpayers to do a specific job. If they are able to combine that specific job with another then it is reasonable to suppose that the ratepayers and taxpayers may be overpaying for the services of their fire brigade personnel in relation to the calls upon their time and energy.

THE decision of His Grace the Archbishop of Canterbury to retire in May next recalls to my mind the keen and lively interest he has always taken in building affairs, particularly the work and skills of the men on the site. Whenever building work was in progress at Lambeth Palace Dr. Fisher, I suspect, itched to get away from his study to join the men doing the repair job or whatever it was. Standing there, smoking his pipe, he would chat with the men and his conversations with them certainly provided, as I can vouch, good material for his after dinner speech-making, in the art of which he was nothing if not a skilled exponent.

Some of my readers may recall the bitter winter of 1947. Scarcely had the snow disappeared from the rooftops after some weeks of heavy falls than London was subjected to another blizzard.

Members and guests arriving at the Guildhall for the March annual dinner of the Royal Institution of Chartered Surveyors were advised by the cloakroom attendants to continue wearing their overcoats as the building, still awaiting restoration after the blitz, was bitterly cold. Dr. Fisher, one of the principal guests, was one of the few who elected to leave their coats in the cloakroom and throughout the evening his purple robes provided a welcome splash of colour amidst the sombre black of the rest of the company.

Dr. Fisher will, I am sure, take with him into retirement the best wishes of all the many friends he has made in the building industry.

IT isn't only building contractors who find firm-price tendering irksome. The builders' merchants do as well, according to the president of their Society, Mr. A. L. Prickett. He suggests that members of the Society should not accept firm-price contracts where long periods of cover are required unless they add a substantial

surcharge to their prices or unless manufacturers are prepared to accept responsibility.

I hope they will have the common sense to do nothing of the kind. They should do as I have suggested the contractors should do, quote carefully estimated prices which they know they can stand by—for up to two years if required to do so for that period of time. In turn, the manufacturers should do the same. Anything in the nature of an arbitrary "substantial surcharge" and asking the manufacturers to carry the can is out from the start. Mr. Prickett and his fellow merchants should remember that they are the middle-men of the building industry, and by and large pretty prosperous middle-men at that. If they take any risks at all, even with firm prices over long periods, they are insignificant by comparison with those contractors and manufacturers necessarily have to take. The builders' merchants have always been on a comparatively easy wicket, and look like being so, free from most of the trials and tribulations which beset the rest of the industry at large. There's no need, as far as I can see, for Mr. Prickett to seek to make it easier by talk about "substantial surcharges." The merchants must learn to carry their fair share of the burden; they can't expect to be on the receiving end all the time.

HERE'S another case for the direct labour record. Bootle Council invited 35 firms to submit tenders for the erection of two school meals kitchens. But they had only one response—and that was from their own works department. "No one," says Councillor R. M. Lyons, of Bootle Education Committee, "can say that we didn't give private enterprise a fair chance."

It is believed that the lack of tenders from contractors was due to a shortage of labour in the Merseyside building industry. Looks like we're back at apprenticeship again, doesn't it?

It's funny, though, isn't it? When a credit squeeze or capital investment cuts are in progress every contractor in the land is prepared to fight direct labour and all that it stands for to the death. When there's plenty of work about nobody could care less about direct labour—even to the extent of all 35 firms invited not having the common courtesy to put in a price. If only they could see it, now is the time to fight direct labour and to stop it growing. If it is left until the next time the industry slackens off the direct labour departments will be so firmly established that nothing will shift them.

MANY of the larger contractors have mechanised their accounting systems but there is still a substantial demand for the Standard Time and Wages Sheet and Pay Packet produced by the British Standards Institution. This Sheet and Pay Packet are shortly to be revised to accommodate the graduated National Insurance Contributions which, under the National Insurance Act, are due to be paid on or after April 6, 1961. Contractors using the Sheet and Pay Packet are therefore advised, when ordering fresh supplies, to take into account the fact that a revision is imminent.

I understand that the revisions are quite simple ones and amount basically to the introduction of a new column for the graduated scheme in the Employee's Deductions section and in the corresponding section dealing with the Employer's Contributions. The amendments will, however, necessitate a slight increase in the size of the Sheet.

Incidentally, the success of the initial launching of the graduated National Insurance Scheme depends very much on employers diligently inserting the National Insurance Numbers of employees on Income Tax Cards as they have already been requested to do. I understand, however, that there are a considerable number of cases where this has not been done and it is a point which every contractor should check.

BUSY YEAR FOR LONDON BUILDERS DESPITE BRICK AND LABOUR SHORTAGES

MEMBERS have had a busy year despite the handicaps of a continued brick shortage and difficulty in the recruitment of adequate skilled labour, states the annual report of the Council of the London Master Builders Association. As the year closes there may be said to be one or two small clouds on the economic horizon, and it is the sincere hope of the Council that the Government will not again make use of the building industry in an attempt to control the economics of the country.

There has been far too much "turning on and off the tap" in recent years to make for stability and to permit effective forward planning in the industry, comments the report.

Annual Report

The report, of which the following are extracts, was adopted at the annual general meeting of the Association held at the Park Lane Hotel, London, last Tuesday. Membership figures at December 31, 1960, were ordinary members 1,107; associate members 141; honorary members 4; information service subscribers 182.

National Contractors Group

A further increase in the interest taken by senior members of the National Contractors Group in the work of the principal committees of the Association is evidence of the way in which the Group has become firmly established as a vital part of the organisation. The advice and influence of the larger firms, together with the interest which they are taking in the Association's activities, is contributing materially to the standing of the Association. Having thus established its position over the past three years, the Group may now feel able to devote a greater portion of its time and resources to detailed consideration of various aspects of policy which are of particular concern to the larger firms, and to issue recommendations calculated to benefit not only its own membership but the whole of the industry.

Maintenance Builders Committee

This committee continues to represent the large number of members who specialise in the smaller types of conversion, maintenance and repair work. The areas have been invited to consider whether the committee is sufficiently representative or whether its composition should be changed in any way, and this subject is still under discussion.

Matters considered by the committee during the year have included the status of the builder, the Coal Utilisation Council courses, the relative responsibilities of builders and suppliers for consequential damage arising from the supply of defective materials, shortages of various materials and also of labour, and the state of trade generally.

House-Builders Committee

In common with almost all regions of the country the House-Builders Committee has been devoting a great part of its time to the problem of availability of land for house building. Particular attention has been paid to proposed amendments to development plans, and to release of white land. Where it has been thought that the allocation of land for house building in development plans has been insufficient, investigations and representations have been made.

Through the House-Builders Committee the L.M.B.A. lodged an objection to the proposed Croydon Airport Development Plan and received assistance from the

National Federation's Defence Fund in this case. The Association presented its case before the public inquiry held on the instructions of the Minister.

Plasterers Association

During the year the London Master Plasterers Association has turned its attention particularly to the exploration of mechanisation in plastering. A number of demonstrations of machinery have been held and it is proposed, after members have reported the results of their own trials, that further demonstrations should keep members abreast of the latest developments in this field.

In a year of considerable activity the Plasterers Association has also turned its thoughts towards the particular problem of the replacement of craftsmen, and the apparently inadequate entry of apprentices into the plastering trade. Labour conditions have also been to the fore and concern has been expressed on many sides at the falling away of the craft force available in the trade. As an additional stimulant towards apprenticeship training, prizes for practical plastering have again been offered to students at technical colleges in the London region.

Accident Prevention

The setting up of the Association's Safety Advisory Service in conjunction with Ro.S.P.A. is perhaps the highlight of a very full year's work accomplished by the Accident Prevention Committee. This service, which will start early in the new year, is to be offered free to members of the Association. They will be able to obtain the best possible advice and information on safety matters through the safety advisory officer, who will be specifically concerned with the building aspects of safety.

Labour Relations

Thirty-two cases have been heard during the year by Regional Conciliation Panels and Disputes Commissions.

Thirteen claims were the subject of conciliation panels. Once again the majority were concerned with termination of engagement and some cases might well have been avoided if the Association's advice had been sought at an early stage.

L.M.B.A. representatives on conciliation panels and disputes commissions were frequently handicapped by the poverty of the presentation of the employer's case, and additionally were more seriously handicapped by a difficulty which arose from an apparent discrepancy between the facts as laid before the committee, and those presented by employer witnesses in evidence. The Council feels it most important to emphasise firstly, the need to consult with the Association on all labour matters where a dispute is likely to arise, and secondly, to ensure that members are represented by competent and responsible witnesses with full knowledge of the case in which they are representing their firms.

The remaining cases included claims for loss of tools and arrears of bonus. Of particular interest was a claim for extra payment for carpenters engaged in laying thermo-plastic tiles, a claim which was unanimously rejected by the general purposes committee of the National Joint Council.

There has been an increase in the number of disputes commissions held during the past year; a disturbing aspect of these has been the readiness with which men have stopped work unofficially, without waiting for their grievance to be settled by the machinery set up for that purpose. The great majority of the cases concerned the discharge of card or federation stewards.

Apprenticeship

During the first quarter of 1960 the Association indentured a higher number of new apprentices than in the corresponding period of any year since 1948. There has also been an encouraging increase in the number of members training boys.

The Association, in common with other regions, has felt that while the National Apprenticeship scheme is undoubtedly one of the finest methods of training craft apprentices in any industry today, it has a number of minor difficulties which, by co-operation and discussion, should be capable of being smoothed away. To this end the Association has given a great deal of consideration to looking at a new angle on apprenticeship. The views of the Association have been submitted to the National Federation, and are being discussed with the London Region of the N.F.B.T.O.

A drop in the cancellation figures from 17½ per cent. to 11½ per cent. continues to bear out the increasing discernment of employers in the selection of the right type of boy for craft training.

While the improvement in recruitment in the first few months of the year was most marked, this high increase was not maintained in the following months, but nevertheless, the final annual figure of 1,107 shows an increase of 34 per cent. over 1959. The support given to the apprenticeship committee from the areas, the National Contractors Group, and the allied trade associations has been most valuable.

Improvement in the intake of bricklayers and painters has been maintained and thus there has been a better balance between the crafts.

The existence of facilities for sponsored transfers in those cases where, through shortage of work, an employer may find difficulty in retaining indentured apprentices, has undoubtedly eased the minds of some firms who have been reluctant in the past to commit themselves to a five-year contract. Similarly, many established Apprentice Masters have been encouraged to plan their apprentice intake on maximum or average labour force figures rather than minimum figures. A number of employers has taken advantage of these facilities, but nevertheless the number of "sponsored" places still exceeds acceptances by about 300 per annum.

Contracts and the Law

The Association has continued to encourage the use of Standard Forms of Contract without alteration. An increasing number of reports of attempts to vary the Standard Conditions have been the subject of negotiations with professional advisors with an appreciable degree of success. In particular, efforts are now being made in conjunction with the London Master Plasterers Association to get the Standard Form of Sub-Contract (non-nominated) adopted generally for plastering work.

It is a matter of regret that the good example set by the Ministry of Works in the matter of preparation of documents and drawings when tenders are being invited on a firm-price basis is not being followed by others who are seeking tenders on this footing.

During the year considerable activity has taken place in the field of direct labour. A regional committee has been formed and has held four meetings. Meetings have been held with the L.C.C. and the Kent C.C. The committee has invited areas to appoint members to help in its work, and in the battle to contain and reduce the direct labour activities of local authorities.

VERY HIGH LEVEL OF BUILDING ACTIVITY IN SOUTH WALES

Changing Views on Labour-only Sub-contracting

IN his report presented at last week's annual general meeting of the South Wales and Mon. Federation of Building Trades Employers, Mr. C. D. L. ARGENT, president, said as far as building work was concerned, demand during 1960 had been at a very high level and parts of the region had been overloaded. There was no reason to suppose that business would be any less active over most of the coming year.

The very fact that bricks were fully booked for nine months or so suggested that much forward business had reached the stage at which it could hardly be withdrawn from the pipeline. The short-term outlook was assured but the recent setback in certain export industries prompted a more cautious estimate for the more distant future. At the same time it was fair to assume that further curtailment of credit would be directed at the producers of consumer goods and that industries concerned with capital goods such as buildings would not be subject to direct curbs.

Private Investment Work

Referring to private investment work, the President stated: "The region has a very heavy programme in progress for the iron and steel industry, and it is understood that the substantial projects for the motor industry at Cardiff and Llanelli are in the preparatory stages and that they will go forward. Manufacturers in other lines are reported to have plans for extensions and new factories, but to the extent that they serve only the home market there may be a tendency to defer action if economic conditions show any recession. The building of offices, shops, warehouses, etc., has provided a good deal of activity and it is thought that new office building may be at a peak, but otherwise it is probable that commercial requirements will continue at a level in line with that of the year under notice."

Housing Outlook

Dealing with housing he said: "Housebuilding for local authorities seems certain to be more active over the coming year when there will probably be some desire to speed up the rate of construction which has been adversely affected during the current year by shortages of bricks and man-power, plus appalling weather."

"So far as the longer term is concerned housing authorities are disinclined to increase rents in the face of the agitation aroused when decisions are made to do so, and programmes will be restricted by the fact that new unsubsidised building makes a heavy call on local finance. In that context some authorities are experimenting by erecting houses for letting at economic rents and it will be of considerable interest to see how such projects work out. Otherwise the tendency will be to concentrate on the redevelopment of slum areas, which are likely to take the form of flats in high blocks."

"Private housing continues to make progress, in that the number of such houses completed during the year ended September 30, 1960, was 4,276, as against 3,540 in the previous 12 months. While the total for the region is still behind that for council houses it may be of interest to record that in the case of Glamorganshire private housing has taken the lead—completions were 3,158 against 2,228 council houses. At 4,516, private houses under construction at September 30, 1960, compared with 3,004 at September 30, 1959, and it would seem that activity will

be maintained for a while. A noteworthy feature of the figures reviewed is that the period of construction in the case of private houses was appreciably less than that for council houses.

"In the field of private housing, at any rate in the larger centres, the problem is that land held by housebuilders is being rapidly exhausted and that it has been impossible to obtain further land to allow of planning for a continuity of estate development. This situation has been brought about by the fact that the Town and Country Planning Act has operated in such a way that land allocated for housing is not enough to meet the demand. It has prohibited development in fringe areas of centres where services are available and caused owners of land allocated for houses to hold off the market pending the provision of sewerage and other services, presumably on the possibility of still higher prices. In those circumstances members have had to take the line of approaching land owners, including local authorities, with proposals that they undertake the provision of site services and allocate portions of the site to builders for the erection and sale of houses on a leasehold basis.

Repair and Maintenance Work

"Of recent years, work in this field has been stimulated by improvement grants and to a lesser extent by the easing of rent restrictions, and the demand during 1960 has been strong. If anything, it is to be expected that it will further expand in the ensuing year, having regard to the increasing use of grants for improvement and conversion of houses.

"Some of our districts have had occasion to make representations to local authorities about rigid insistence on formalities in dealing with applications for grants and the introduction of advice to applicants about contract conditions; on the other hand it has also been necessary to put to some authorities the need for warning recipients of discretionary grants that the work should be placed in accordance with the approved estimate and not given to spare-time jobbers."

Spare-time Jobbing

Speaking of labour relations, Mr. Argent said: "The extent to which operatives undertake work during evenings and at week-ends was a matter that again caused concern, and further consideration was given to ways of checking it. In so far as the spare-time workers were employees of public authorities or nationalised bodies, local associations made representations to the employers concerned, who usually took steps to stop the practice or gave strong warnings against it. In so far as the practice was attributable to employees of builders it had to be recognised that the shortage of operatives limited the scope for firm action, but discouragement was exercised."

"Other action during the year under review consisted in putting the issue before the regional joint council, which confirmed that the trade unions were also concerned to halt the disregard of the regional supplementary rule prohibiting jobbing by operatives. The joint council sought the co-operation of the Building Industry Distributors in the matter of the supply of building materials to other than bona-fide builders, and recommended meetings of local joint committees to examine the position locally and to take certain lines of action, including representations to local authorities where it appeared that recipients of improvement grants were giving work to spare-time jobbers. On the

question of making known to the public the risks of employing spare-time jobbers without insurance against employers and third party liabilities, the National Federation is preparing leaflets that will assist to that end.

"In discussion of the difficulty at the regional council it was accepted that one of the major incentives to spare-time work was that payments were not made subject to income tax, and local steps to remove that incentive were probably one of the most effective deterrents.

Labour-only Sub-contracting

"The growth of labour-only sub-contracting was considered by the regional joint council on the grounds that it was prejudicial to apprenticeship and to the status of the industry. From the point of view of employer members a view that emerged was that the practice appeared to be developing into a form of direct labour employed by the public, particularly in relation to the building of individual houses and bungalows. In addition it was suggested that labour-only sub-contracting was attracting more and more skilled operatives and thereby contributing substantially to the acute shortage of manpower for contract work. At present Federation policy is not against bona-fide labour-only sub-contractors who stamp National Insurance and Holiday-with-Pay Cards, in default of which claims would fall on the main contractor. The matter was referred to the regional federation council which decided to inquire of the national wages and conditions committee whether any change of policy was desirable in the light of the new development, and if so whether means could be devised of preventing the growth of service to would-be house-owners direct. The issue is closely connected with the problem of reaching a general system of bonusing strictly related to results."

TOWARDS BUILDING CODE OF ETHICS

"Today there is no excuse why any building firm should not progressively increase its efficiency," stated Mr. D. E. Woodbine Parish, national president, at the annual general meeting of the South-western Federation of Building Trades Employers in Bristol last week.

"For some years now the Building Advisory Service has been available to advise and guide building employers on all management and organisational problems both on the sites and in their offices," he said. "The recent decision of the N.F.B.T.E. to take a first step towards establishing its own Technical Information Service by inaugurating a free Technical Inquiry Bureau ensures that every firm has the opportunity to overcome the technical and scientific problems frequently encountered in building practice."

Complementary

"The Advisory Service and the Inquiry Bureau are complementary to each other and I urge firms, in their own and their clients' interests, to use both. This is important to our industry for I believe that by providing these two services the National Federation is paving the way towards a much bigger concept—the concept of a code of ethics and a recognised standard of efficiency in the conduct of building."

"It will take time for such a concept to be accepted, but it is what we must all aim at if we are to live up to our role as a National Federation of employers in an industry so vital to the well-being of the national economy."

The River Boards' Association, 15 Great College Street, Westminster, S.W.1, have published their 1960 Year Book, price 5s. (including postage 6s. 3d.).

U.S. HIGHWAY RESEARCH BOARD ANNUAL MEETING

At the 40th annual meeting of the Highway Research Board, held in Washington, D.C., recently some 200 research papers and reports were presented and discussed at 48 separate sessions. The departments and committees of the Board held 92 business meetings during the week. Synopses of some of the Papers presented are given below.

BRIDGE VIBRATIONS AS INFLUENCED BY ELASTOMERIC BEARINGS

William Zuk, highway research engineer, Virginia Council of Highway Investigation and Research

Inasmuch as many highway bridges are now being built with elastomeric bearings, it was considered desirable to study the vibration effects of such bridges. A theoretical analysis is presented, followed by several example calculations of short and medium span bridges.

General relationships are presented to determine the frequency of vibration of simple span bridges in the fundamental mode and the ratio of bridge beam deflections to the flexible bearing deflection under vibration subject to vehicular loads.

Contrasting the behaviour of bridges with elastomeric bearings and with conventional rigid bearings, the following general conclusions are found: (a) The dynamic bridge deflections are increased; (b) the frequency of vibration is reduced; (c) the elastomeric bearings add damping to the system; and (d) the dynamic stresses in the bridge are significantly reduced.

The fact that the impact stresses are reduced is quite revealing, as elastomeric bearings may lead to further structural economy, whereby less tolerance need be allowed for impact.

DRAINAGE STUDIES FROM AERIAL SURVEYS

Irwin Sternberg, Arizona State Highway Department

Aerial vertical photographs examined stereoscopically provide a useful three-dimensional medium whereby drainage areas can be successfully determined with sufficient accuracy for the design of culverts for highway drainage.

Use of large-scale photographs for determining the placement of these culverts and other items concerned with the collection and dispersion of surface water during run-off periods is also discussed.

Methods, corrections to be applied, and techniques which have been successfully employed, all of which are within the capabilities of the average field engineer with limited photogrammetric training and equipment are described. Examples are given to show the degree of accuracy which can be expected.

STRENGTH AND VOLUME CHANGE CHARACTERISTICS OF BITUMINOUS MIXTURES

J. H. Schaub, head, department of civil engineering, West Virginia University; and W. H. Goetz, professor of highway engineering and research engineer, Purdue University

Present methods of study of bituminous mixtures utilising the "open" system or constant lateral pressure triaxial test do not consider the effect of test drainage conditions on the magnitude of observed strength values. In addition, the usual consideration of air voids is based on a computation of voids existing prior to testing. If the specimen changes volume during a strength test, the observed strength values correspond to a different condition of voids than that established prior to testing.

This paper reports a study performed on

bituminous mixtures compacted at different asphalt contents by use of the kneading compactor. The study measured the effect of various test drainage conditions on the observed strength values obtained by the "open" system triaxial test. Volume changes during testing were observed and relationships between void content and strength at various strength criteria were established.

Differences in drainage conditions existing during the performance of triaxial compression tests on dense-graded bituminous mixtures do not appear materially to affect strength values. This conclusion appears justified for time intervals between static load increment applications of one hour or less.

Indirect evidence indicates that a negative pore pressure develops in the gaseous phase of a mixture subjected to triaxial compression. The indicated negative pore pressure did not affect the strength results to any appreciable extent, so it was concluded that the effect of this pressure was so small as to be masked by the high strength values of the mixtures tested.

All test results clearly demonstrate that the bituminous mixture specimens tested changed volume during the progress of a test. The observed volume changes consisted of a slight reduction in volume followed by an expansion to failure.

There appears to be a unique relationship between per cent. voids and/or void ratio and the deviator stress at 2 per cent. axial strain and at the proportional limit. The established relationship apparently depends on the initial conditions of voids to which the specimen is compacted.

CO-ORDINATION OF CONCRETE PAVING OPERATIONS BY A TRIAL AREA

Peter Smith, senior materials engineer, Ontario Department of Highways

This Paper is about the start of laying concrete pavement on a new contract. It introduces the idea of regarding the start as a trial during which the contractor's organisation, crew and equipment have to be brought into working co-ordination with the design concrete mix so as to achieve the specified concrete and riding quality for the pavement. A systematic method is described which should ensure that the paving operation as a whole reaches its final and most satisfactory form as quickly as possible. A specification for this (as used with great success in Ontario) is given, which calls for a trial area of pavement 1,000ft. long to be laid ahead of the main paving. During the laying of this trial area, any necessary changes in the organisation, the training of men, the adjustment of equipment, or alterations of the mix, are made.

Accelerated tests are being developed which could establish the quality and compaction of the concrete within a few hours and the riding quality of the pavement is measured. If all is well, the contractor is allowed to proceed and the trial area becomes part of the pavement. If not, the contractor is held until the corrections, which in the opinion of the Highway Department's engineers are needed, are made; and any slabs in the trial area not meeting the specification are removed and replaced at the contractor's expense. The background, contractual and practical advantages, together with the results achieved by such a specification, are discussed.

CONSTRUCTION PROCEDURES OF SLIP-FORM PAVEMENT

George N. Miles, district engineer, Colorado Department of Highways

For purposes of discussion it is necessary to define the paver as the simple, basic slip-form unit first introduced to the construction industry in the early 1950's. Modifications have taken place since that time, but the machine is essentially the same. It travels over a deposit of fresh pre-mixed concrete, vibrating, tamping and forcing it through an orifice which gives dimension, shape and density to the concrete. Critical to these operations and the best functioning of the paver are:

1. The subgrade to be paved must be an accurate presentation of the plane of the finished concrete pavement.

2. The concrete itself must be of proper and uniform consistency and may be a specially designed mixture for best results with the slip-form machine.

3. Best over-all results will accrue to an operation so synchronised that the paver is fed at a constant rate and starting and stopping are reduced to a minimum. These phases of the paving operation are a joint engineer-contractor responsibility, best handled by team operation dedicated to both volume and quality.

The paver presents one of the greatest strides in the production of concrete paving for many years, and shows such a potential toward volume production at minimum cost as to bring about greater use of Portland cement concrete paving, heretofore considered too costly by many highway construction agencies.

SPECIFICATIONS AND CONSTRUCTION CONTROLS TO OBTAIN SMOOTH-RIDING BRIDGE DECKS

J. W. McKnight, regional paving engineer, Portland Cement Association, New York City

Construction procedures and specification controls that will produce smooth-riding bridge decks are presented.

It is pointed out that the basic principles that produce smooth-riding concrete surfaces are the same for pavements placed on grade and on bridge decks. The need for uniform subgrades is analogous to the need for determining cambers that reflect careful estimates of dead loads during placing and finishing of bridge decks.

To make bridge decks ride as smoothly as adjacent pavements the screed guides or rails that support paving equipment on bridge decks must be set with the same care and precision employed in setting side forms for concrete placed on grade.

The criteria for proper placing and finishing of concrete placed on grade should be followed in placing and finishing bridge decks. The only important difference in the two procedures is that the limited work space on bridge decks makes careful planning indispensable.

To ensure adequate planning and the other procedures essential to smooth-riding bridge decks the specification for bridge decks should prescribe in detail regarding:

1. Pre-construction conferences between

engineers, inspectors, and contractor personnel.

2. Placing and finishing equipment.

3. Type of screed guides or rails to be used and the procedure to be followed in establishing grades for the guides or rails.

4. Properties of the concrete mix.

5. Minimum acceptable methods for placing, consolidating and finishing the bridge deck concrete.

6. Acceptable procedures for curing the concrete.

PAVEMENT OVERLAYS USING ISOPOLYESTER RESIN AND ASHPALT LAMINATES

R. J. Schmidt, D. F. Percival and T. C. Hein, California Research Corporation, Richmond

There are a number of situations where exceptionally durable or special quality coatings are required over asphalt concrete or Portland cement concrete pavements. Low wear, high skid resistance, solvent resistance, and special "rumble" textures are some of the surface qualities that can only be attained by special methods. New isopolyester resin-asphalt laminated overlays meet these unusual requirements. Laboratory and full-scale field tests using these coatings are described. Also discussed are the equipment and methods used for their construction. Favourable early experience with these coatings indicates that their use may become widespread.

EFFECT OF MIXING TIME AND OVERLOAD ON CONCRETE PRODUCED BY STATIONARY MIXERS

J. F. Barbee, rigid pavement and concrete engineer, Ohio Department of Highways

This Paper covers tests made in conjunction with the Bureau of Public Roads on two concrete paving projects to determine the minimum time required by stationary mixers, used to mix concrete for agitating or non-agitating delivery, to prepare well-mixed and uniform concrete, and to determine the amount of overload that can be permitted.

Two mixers were used in the tests, one a 210 S, the other a 254 S. Mixing times were 150, 120, 90, 75 and 60 seconds, with no overload and with a 10 per cent. overload.

Tests were made to determine compressive and flexural strength, consistency, air content, unit weight and percentage mortar in the mix (using washout).

Based on the results obtained, the Ohio Department of Highways has changed its specifications for central mix concrete to 1½ minutes mixing time with an allowable 10 per cent. overload.

CORRECTIVE MEASURES EMPLOYING EPOXY RESINS ON CONCRETE BRIDGE DECKS

Harold W. Goldberger, engineer of maintenance, Garden State Parkway, New Jersey

This Paper describes the application of an epoxy polysulphide sealer to the concrete bridge decks of the Bass and Mullica River bridges on the Garden State Parkway operated by the New Jersey Highway Authority. The Garden State Parkway extends 173 miles south from the New York State line to Cape May, New Jersey. There are 240 bridges on the Parkway, varying in length from 50ft. to approximately 6,200ft. Most of the bridges have been in use since 1954. The average number of toll transactions on the Parkway during the peak summer months in 1960 was 320,000.

The main problem on these bridges is deterioration of the concrete decks and kerbs from the action of salt penetrating cracks and causing scaled and spalled areas to develop. Corrective measures to date, such as crack sealing and filling spalled areas with asphaltic compounds, have been unsuccessful. Past experience with epoxy compounds led to seeking improved compounds and methods of application to repair and seal the bridge decks from further crack penetration and deterioration in one complete operation. The patching and sealing material used in the operation was a proven formulated epoxy polysulphide compound sold in bulk by the raw material suppliers. Prior to the application of the sealer, 12,000 sq. yd. of the concrete bridge decks of the Bass and Mullica River bridges were sandblasted to remove foreign materials. Scaled areas were patched and cracks filled with an epoxy polysulphide compound using stone sand as the aggregate. Use of bulk materials in experimentation with various application methods gave a fully automated operation using a trowelling compound mixer and a two-component epoxy spray unit plus accessories. Application of the non-skid emery aggregate to the freshly applied sealer was accomplished using a sandblaster and an open-end hose. The general result of this automated operation was a skid resistant road surface. The concrete decks were sealed from the damaging effects of salt and the life of these bridges was extended by this preventive maintenance programme.

Other benefits include low cost of application through the training of Parkway maintenance personnel and purchase of material in bulk from the raw material suppliers.

The general consultants for the New Jersey Highway Authority have recommended that all bridge decks on the Parkway be sealed within the next five years as a preventive maintenance measure.

CAMBRIDGE FACTORY EXPANSION CONTINUES

WORK is now well advanced on another building at the Cambridge Instrument Company's factory in Chesterton Road, Cambridge.

The new building, which will be similar in appearance and joined at one end to the company's new research laboratories, will consist primarily of two floors supported at first floor level by a series of reinforced concrete pillars. The top floor will house testing, assembly and wiring departments, and the first floor will be devoted to enlarged production space for the company's Microscan x-ray analyser and to works offices. The area beneath the first floor will be almost wholly taken up by parking space and a loading bay with gantry and platform.

An important feature is a double-decker bridge that will connect the building to existing production departments and provide additional space for a calibration room and cloakrooms.

The building, which is expected to be ready for occupation in July, adds 16,000 sq. ft. of floor space to the 20,000 sq. ft. provided by the research laboratories, which were opened by Lord Adrian in October, 1959. It is being erected by J. Jarvis and Co., Ltd., to the design of the architects, Edward D. Mills and Partners.

LUTON AIRPORT DEVELOPMENT

Luton Corporation is to proceed with Phase I of the airport development programme including the construction of means of access to hangar sites, clearways and soil and surface water sewers.

Sir Robert McAlpine and Sons, Ltd., propose to erect a new hangar on a leased site and the Corporation are to negotiate with the firm for the construction at an agreed price of the means of access and clearways needed in connection with the erection of the hangar.

Based on the performance of the materials used and the experience gained by the maintenance personnel, it is intended to use materials similar or equal to those used on the Mullica and Bass River bridges to accomplish this programme.

INFLUENCE OF FOOT SIZE ON SOIL COMPACTION EFFICIENCY

John Guy Jackson, Jr., U.S. Army Engineer, Waterways Experiment Station, Vicksburg, Miss.

Observations based on extensive performance testing of field compaction equipment in both Great Britain and the United States indicated that, for tamping rollers, there probably are optimum values of foot area and pressure that will give maximum soil compaction. The efficiency of this type of equipment is measured in terms of its ability to obtain a desired degree of compaction or density in the least number of passes.

This investigation was undertaken to determine the influence of foot size on the efficiency of soil compaction. To do this, laboratory dynamic compaction tests were performed with compaction hammer feet of 2-, 3-, 4-, and 5-in. diameters. The soil used was a red-brown, micaceous, fine, sandy clayey silt of medium compressibility.

For each foot size a series of compactions was performed at varied water contents by an amount of work that was held constant. A large (½ cu. ft.) compaction mould was designed to minimise confining effects of the mould and their effect on the results obtained with the larger diameter feet. A compaction hammer weighing 10lb. and having a free fall of 18in. was constructed; the base of the hammer consists of a threaded socket into which the various compaction feet were attached. The data collected were used to compare the compacted densities produced by the various size feet.

This investigation led to the following conclusions: The density obtained from dynamic compaction is dependent on the area or diameter of the compacting foot. For a given soil, moisture content, and method of dynamic compaction, there is a particular foot diameter which will produce the most efficient compaction. The effect of the size of the compaction foot on dry density is largest when the moisture content is near the optimum. At high values of moisture content which approach a saturated condition, the size of the compacting foot has no effect on density. The optimum moisture content produced by dynamic compaction at like amounts of work is independent of the area of the compacting foot. The optimum foot diameter decreases as the compactive effort increases. The most efficient compaction operation would be one in which the foot diameter was reduced at successive stages of the compaction process.

LAND PURCHASE DELAYS M.I.

Land acquisition problems are delaying progress on the next section of the London-Yorkshire Motorway. Derbyshire County Council, who have joined with Leicestershire County Council in urging the Minister to start work on the stretch as soon as possible, were told last week by Alderman N. Gratton, chairman of the bridges and highways committee, that the extension of the M.I. through Derbyshire to link with the Doncaster By-pass would be started as soon as local land was acquired. According to the Ministry, it was not possible to say when, during the next five or six years, the scheme would start, but it was being prepared as speedily as possible.

Previous indications have been that the new section would be constructed within the next five to 10 years. Derbyshire County Council have already conducted a survey and have drawn up a list of roads in the county which will need improvement when they start to be used as "feeder" roads for the motorway.

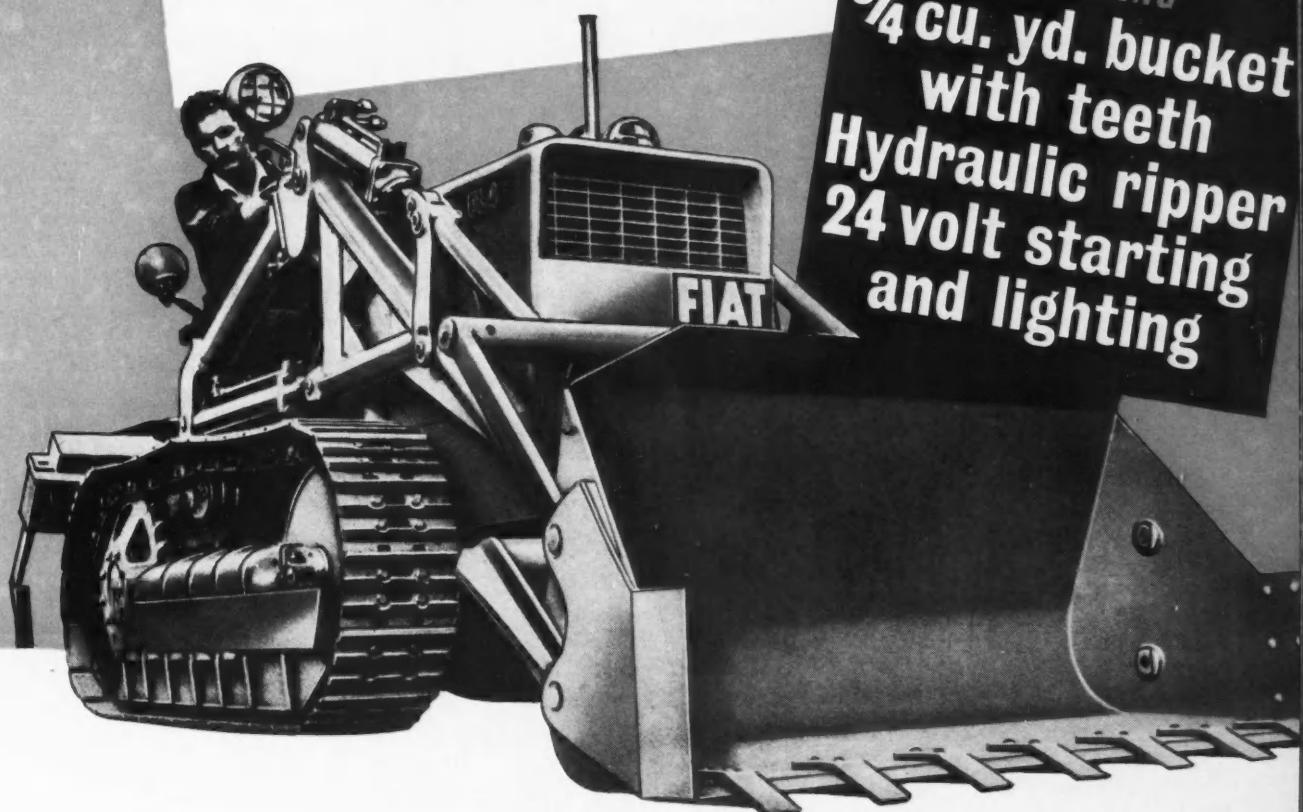
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POWER UNIT

A Fiat 40 h.p. 4 cylinder diesel engine built for continuous top performance and reliability

TRANSMISSION

The quick reverse lever eliminates time wasted in gear changing. Change of direction is made instantly in any of the four forward and four reverse gears.

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$\frac{1}{4}$ cubic yard bucket with teeth fitted as standard equipment. With a clear loading height of 7ft. 3in. the FL.4 will load evenly all standard type trucks.

MANOEUVRABILITY

The ideal machine for work in confined spaces. The FL.4 turns in its own length.

HYDRAULIC RIPPER

Fitted as standard equipment, the 3-tine hydraulic ripper is used for ripping up paths, roads, tree roots and scrub. On normal site work the use of the ripper increases output by a third and decreases wear and tear on the machine.

TRANSPORTATION

Any standard 4-5 cubic yard truck will get the FL.4 where you want it. There is no need to buy special loaders for this machine.

SEE NEXT PAGE FOR COMPLETE SPECIFICATIONS →



SPECIFICATIONS

Horsepower

Engine horsepower at rated R.P.M.	40
Drawbar horsepower	29

General Dimensions

Width, overall (over track frame pivot bar)	4' 6½"
Length, overall (bucket on ground)	14' 3"
Height, top of exhaust	5' 10"
Ground clearance	0' 8½"
Weight, complete	9,050 lbs.

Engine

Fiat	Diesel
Type	4-cycle
Number of Cylinders	4
Bore and Stroke	3 ½" x 3 ½"
Piston Displacement	138.5 cu. in.
Compression ratio	21.5
Rated R.P.M. governed at full load	2,300
Electric Starting	24 volt

Speeds (at rated engine r.p.m.)

FORWARD	
First	1.6 m.p.h.
Second	2.5 m.p.h.
Third	3.4 m.p.h.
Fourth	5.3 m.p.h.

REVERSE	
First	1.8 m.p.h.
Second	2.7 m.p.h.
Third	3.7 m.p.h.
Fourth	5.8 m.p.h.

Drawbar Pull. lbs. maximum engine torque

FORWARD	
First	5,000
Second	4,500
Third	3,500
Fourth	2,000

Engine Clutch

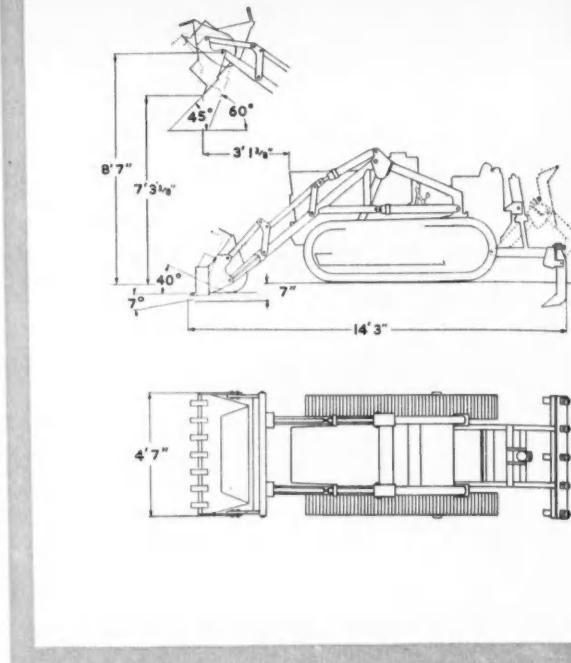
Single-plate, over centre type.

Steering Clutches

Spring loaded, multi-plate, one for each track.

Tracks

Tread (centre to centre of tracks)	3' 7½"
Length of track on ground (centre of drive sprocket to centre of front idler)	5' 0¼"
Ground Contact	1,232 sq. ins.
Ground Pressure	7.35 p.s.i.
Width of Track Shoe	10½"
Number of Track Shoes each side	35
Height of Grousers	½"
Number of Track Rollers each side	5
Number of Idlers each side	1



Capacities

Cooling System	2.6 gals.
Crankcase	1.7 gals.
Transmission Case	2.8 gals.
Final Drive—each	1.2 gals.
Fuel Tank	14.1 gals.

Hydraulic System

Front Mounted Pump	
Pump output, gallons per min.	11
Control Valve (three valve unit)	
Relief valve operating pressure	1,700 p.s.i.
Positions: Lift Control—raise, hold, lower.	
Bucket Control—tip back, hold, dump.	
Ripper—raise, lower.	

Cylinders—double acting type

diam.	length
3"	22½"
3"	12½"
3"	12½"
Hydraulic System Capacity	
	6.4 gals.

Bucket

Capacity	1 cu. yd.
Bucket Teeth	7
Width of Cutting Edge	4' 7"
Max. Discharge Height (cutting edge of bucket at 45°)	7' 3¾"
Reach (at max. discharge height, bucket at 45°)	3' 1⅓"
Dumping Angle of Bucket at Maximum Lift	60°
Angle of Tip-back on Ground	40°
Drop Below Ground Level at 7° Angle	7"
Lifting capacity (from ground to max. lift)	2,200 lb.
Break-out or digging force	up to 5,300 lb.

Hydraulic Ripper

Number of Tines	3
Distance between each tine	2' 0"
Maximum digging depth	10"
Tines reversible when not required.	

THE ABOVE INFORMATION IS FOR GUIDANCE ONLY
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ENGINEER LED TOWN PLANNING IN WAKEFIELD AND BRADFORD

AN account of town planning achieved under the leadership of an engineer in the service of a municipality—at Wakefield and Bradford—was discussed last week in a Paper presented at the Institution of Civil Engineers.

Mr. Stanley Wardley (since 1946, city engineer and surveyor, Bradford) mentioned in his Paper, "A Civil Engineer and Town Planning", the plan for the centre of the city of Wakefield and described the replacing of the Bradford city centre.

He considered that town and city centres presented the modern planner with his greatest challenge. "A man who tackles this problem must react to the thrill and vitality of life in the great cities, and be in sympathy with the civic urges of its inhabitants. Reasonable and sensible discipline is, of course, vital. Negative palliatives which have been served up over the past 30 years are no substitute for the physical expansion which is required, if centres of towns are to continue to be the hub about which their social and industrial life revolves."

In June, 1943, Mr. Wardley produced a plan and report for the centre of Wakefield. Since then, great strides have been made in the city's central development along the lines of the plan. When he was appointed city engineer and surveyor to Bradford, 1946, he was commissioned to prepare a scheme for replanning the central area of that city.

The problems he set out to solve for Bradford were: the relief of traffic congestion; the provision of an adequate system of roads through and around the centre, and sufficient off-street car parks; the creation of a shopping precinct free from unnecessary through and public-service vehicle traffic, and the expansion of the shopping area; the provision of modern office accommodation, new civic buildings, a bus station, and area for a new theatre and other buildings of entertainment; and the allocation of space for the extension of the city's higher and technical educational establishments.

Capital Investment

Mr. Wardley said that apart from the virtues of its street pattern and aesthetic qualities, the test of a town planning scheme was whether trading interests could be persuaded to invest capital to implement it. He continued:

The problem facing Bradford City Council was to persuade a substantial national trader to start the ball rolling by building premises in what at the time had all the appearances of being a shopping wilderness. It could be demonstrated that the site suggested had all the physical advantages of a level site and could be of depth and frontage ideal for their modern needs; that it was the natural part of the city where the inhabitants must come, even to reach the existing shops; in fact, statistics showed that 127,000 passengers came into the area by public transport every day. The existing railway termini and the bus station proposed in the city plan were on the fringe and served the area. The new-road proposal circumscribed it on three sides and the fourth side was the existing shopping area.

In spite of these facts, such concerns insisted that they must adjoin the existing multiple traders and be in the area where the shopping public were observed to concentrate.

However, without the assistance of agents, and with the help of one important firm, the author brought together a number of other firms who had shown a desire to trade in the city. As a group they were prepared to participate jointly in a

building scheme as part of the planned shopping centre.

This first effort unfortunately fell through owing to Government restrictions in capital expenditure and a combination of influences against which a development proposal of this kind has inevitably to contend. However, it had the effect of bringing to light the potentialities of greatly extended retail shopping in Bradford. People outside the city began to believe in the plans for the city centre. The author is convinced that the City Council itself would have raised the capital to build part of the new shop and office development but for the Government restrictions on capital at that time. Nevertheless, developers and development corporations had begun to show interest in the city's proposals.

Another venture covering an area of 2½ acres, twice the size of the scheme described above, reached the stage of signing a building agreement to lease the land from the Corporation, but this came to grief at the last fence. Within a few weeks, however, after continued effort two development companies entered into agreements with the Corporation for two sites and redevelopment or renewal of the city centre once again seemed to be a possibility. These private developers have signed agreements to lease land for substantial portions of the planned new shopping and office development and are engaged in building projects amounting to between £5 and £6 million.

A building of ground and six upper floors covering a site of 2,500 sq. yd. is almost complete, with most of its shops and almost all of its 75,000 sq. ft. of office accommodation tenanted. It is a building of elegance and striking proportions; its elevations are faced with Yorkshire stone and with green Westmorland slate infill panels.

Another development covering a site of 11,300 sq. yd. and bounded by Broadway, Forster Square, the new Boulevard, Leeds Road, and Charles Street is under construction. It consists of basements and shop development over the whole of the ground floor, with internal loading facilities. The perimeter of this development has upper floors of varying numbers of storeys of showrooms and office accommodation. The centre of this scheme at first floor level is a roof car park reached by an electrically heated ramp and designed for 200 cars. It was planned in the building agreement to be carried out in four stages in any sequence, each stage to be completed in two years, the developer having a year within which to take up his option on the succeeding stage. Progress is such that the first stage is completed and the first major store has been trading for several months. The second stage is under construction and the developer has exerted his option on the third stage and the site is being handed over. The whole project, scheduled to take 11 years, is already five years ahead of schedule.

Stage two includes the nine-storey shop and office building forming the south-west corner of the redesigned Forster Square. On three sides of the new Forster Square, nine-storey buildings form the frontage and it is anticipated that the General Post Office will eventually be removed, revealing the Cathedral with a processional approach to its west front. The Square, although spacious, will, with its high buildings and the Cathedral dominating it from the hill above, have a sense of enclosure.

Another building which was not expected to start for another five years is already under construction. It covers a site of 2,000 sq. yd. and is situated on the north side of Broadway and forms part of the realigned Cheapside frontage. A great deal of speedy demolition of pro-

perty has been involved to enable the building programme to proceed.

General Comments

The question will be asked—is Bradford right to increase its shopping facilities in the centre?

Central shopping serves a special purpose in a large city, not only for its own inhabitants but for the surrounding country districts and smaller nearby towns.

A study of the floor space occupied by shopping in the city centre showed that it amounted to 630 sq. ft. per 1,000 of population. This was about two-thirds of the floor space devoted to central shopping in Leeds and Sheffield. A general survey of the interests trading in the city centre indicated that Bradford was undershopped and these figures tended to confirm this estimate of the position.

Office Accommodation

In the case of office accommodation the great majority is, or was, of a dark and inconvenient character and not of the standard in which people should be required to work. Moreover, all existing office accommodation in the centre has been occupied to capacity, and the development proceeding in the centre has so far destroyed 100,000 sq. ft. of office floor area by demolition of property. The new building is providing 160,000 sq. ft., of which 75,000 sq. ft. is occupied.

Population in the City Centre

It has not been possible to assess the effect of the more generous working space which is being provided. It is possible that the working population will not be increased, but the increased shopping facilities will undoubtedly increase the visiting shopping public. In the part of the central area affected by redevelopment in the next few years, 490,000 sq. ft. of floor space will be destroyed by demolition. There were also 126,000 sq. ft. of vacant sites which, on redevelopment, will produce about 340,000 sq. ft. of floor space based on plot ratios varying from three to five. These give a total floor space of 830,000 sq. ft. Redevelopment over this same area will produce 864,000 sq. ft. of floor space, of which 330,000 sq. ft. will be for new shopping.

Car Parking

It will be seen from the plan that provision is being made for permanent off-street car parks. Theoretically, this should be related by some standard to the floor space uses and an estimate of the visiting population. It has, however, been arrived at by a survey of the parked vehicles on streets and existing car parks. The Council already propose to make an order for restricting street parking and some progress is being made with permanent parks, namely, a roof car park for 200 cars as part of the new building, a multi-storey car park for 700 cars to be built privately, and a scheme which the author has designed for the retail markets, including a three-storey park for 360 cars. Car parks are also proposed on the fringe of the central area, and there is no reason why, with a rationalised behaviour of the public, satisfactory conditions should not be realised in the future.

The Cost of Replanning

It has been stated above that the plan for the central area would initially earn an income by developing vacant sites and redeveloping unproductive areas. If the boundary to an area of 11 acres is taken to the centre-line of surrounding roads, new and proposed, within which development is now taking place, it is calculated that the income from new ground rents is equivalent to a 10 per cent. return on the capital cost of purchasing the properties

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FAILURE TO TRAIN SUFFICIENT APPRENTICES

Liverpool Builders Faced with Labour Shortages

IN his report presented at last week's annual general meeting of the Liverpool Regional Federation of Building Trades Employers, Mr. J. L. Rawsthorne, retiring president, said the demand for building work of all types had been maintained during 1960 at a high level; nevertheless, competition had remained extremely keen.

Difficulties continued to be experienced in obtaining and retaining balanced labour forces, a position which existed because of the failure of employers to train a sufficient number of apprentices in the past year. The intake of new apprentices had improved during the year but there was still much to be done in that direction.

Material Shortages

Mr. Rawsthorne said the supply position of some materials had also been causing concern. Although local brick production had increased by about five or six per cent. as compared with 1959, the supply still fell short of demand, particularly in regard to facings, and the shortage would undoubtedly have been much more pronounced had it not been for frequent interruptions of work due to long periods of exceptionally wet weather during the last five months of the year.

Deliveries of cement into the region had increased appreciably and some shortening was reported in the delivery dates for steel reinforcement bars. With the exception of structural steel (for which the delivery dates were 6 to 12 months) the supply of most other materials appeared to be reasonably keeping pace with demand.

"Recent increases in prices of various

building materials point to an end of the fairly stable conditions which had existed for some time," he stated, "while the all-round increases in wages and reduction in working hours now taking place in all branches of industry may well spell the beginning of a new dangerous inflationary spiral unless higher wages are matched by a corresponding increase in productivity, to achieve which we must try to ensure that a greater effort is put into the shortened working week."

The National Joint Council had reached agreement that the normal working hours of building trade operatives should be reduced from 44 to 42 hours per week, accompanied by an increase of 6d. per hour, to take effect from October, 1961.

"In conditions of firm-price tendering it was absolutely vital that any substantial increase in wage rates should be known as long as possible in advance of the event, and our negotiators have done well to secure agreement to postpone the effective date for a period of some ten months, albeit not without cost over and above the actual compensatory wage adjustment," he said.

"In reaching this agreement both sides have emphasised the need for achieving the highest possible rate of output within the reduced working week. It has also been agreed to revise the rule regarding meal-breaks, laying down a stipulated time to cover all 'refreshment breaks,' the object being that men shall be paid only for the hours they actually work. It is hoped by this means to absorb some of the increased labour costs. To what extent the new rule will work in practice will depend ultimately on the united action of employers in seeing that it is carried out."

Referring to labour matters Mr. Rawsthorne said during the past few months there had been a recurrence of unofficial strikes, on various pretexts, with bonus disputes as the underlying cause in the majority of cases. In most instances the disputes had been resolved by intervention of the joint officials without calling a Disputes Commission. In six cases, however, the trade union organisers were either unable or unwilling to persuade the men to return to work but satisfactory settlements were achieved by reference to Regional Joint Disputes Commissions.

In several instances where stoppages occurred there had been friction between the men's stewards and the foremen and the operatives demanded the foremen's removal as a condition for resuming work. These demands were successfully resisted in every case.

Apprentices

Dealing with the apprenticeship problem Mr. Rawsthorne said the intake of apprentices by bricklayers, masons and plasterers had not kept pace with the completions and cancellations during the year, with the result that there were actually less apprentices in those trades than there were a year ago.

"What is most disappointing is the fact that nearly three out of every four of our members do not appear to have taken on a single new apprentice during the year, according to our registration records," he continued. "It may be of course that some newly recruited apprentices are still in their probationary period and awaiting indentures.

"The bulge years are now upon us, when the number of boys leaving school is rising to an unprecedented peak. Just as it is in the national interest that as many boys as possible shall be given the opportunity of training for a craft, so, too, it is in the vital interests of the building industry (and not least in the interests of the employers themselves) that the fullest advantage should be taken of this opportunity of improving the quality and rate of recruitment in all crafts."

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involved, including the compensation to tenants and the cost of demolition. If a grant at the rate of 75 per cent. is received for the new roads which partly circumscribe this area, and half the road cost allocated to the redevelopment together with the cost of transferring drainage and other services, the return in ground rents on the total cost to the Corporation represents a 7.8 per cent. income. On the basis of the present product of a penny rate, the aforementioned percentages represent an income from a rate of 4½d. and 3½d. in the £ respectively. This takes no account of increased rateable value.

Underground Replanning

Redevelopment of this character in the centre of a city of the size of Bradford cannot be carried out without encountering difficulties underground involving major civil engineering works. The large building schemes covering an area of 2½ acres involved closing several streets. A main trunk sewer ran under one of these and the course of the culverted East Brook which discharges into the Bradford Beck itself followed another. The 8ft. 6in. by 5ft. 6in. brick egg-shaped trunk sewer has been replaced by a 7ft. diameter brick-lined sewer and realigned along Broadway, and the East Brook culvert was replaced by twin culverts and transferred to Charles Street. Main Post Office telephone cables, high-tension electric cables, and gas and water mains had to be removed clear of the building sites. The work was necessary to give a clear area free from underground obstructions and the trunk sewer, although its invert was about 17ft. below ground, would, together with the East

Brook, have been an obstruction to basement construction.

Again, very difficult foundation problems have had to be overcome in the case of the new buildings between Broadway and Market Street, for the Bradford Beck itself runs beneath them. It has been spanned by 40ft. beams in one instance and completely reconstructed and incorporated in the basement and foundations of another of the new buildings.

The three-dimensional planning above ground is naturally of prime importance. The architecture and building materials are controlled under the terms of the lease and a continuous effort is being made to ensure that the aesthetic qualities of this replanning of the city centre are of the highest quality and standard.

Beyond the City Centre

Planning in Bradford is not, of course, confined to the city centre. Many other phases of development of a substantial kind have been taking place since the war in other parts of the city and the development plan, which it has been the author's function to prepare, is effectively guiding and assisting the expansion of industry, new housing—both private and Corporation—and promoting the redevelopment of the slum-clearance areas and their surroundings. Some of these are used for new industrial building, and in others flats and maisonettes replace the old back-to-back houses and will become the revitalised residential areas near the centre of the city.

Housing in Relation to Industry

Housing and industry are inseparable—they must march in step. Any town and country planning scheme which overlooks the harmonising of these two physical

developments as the basis of civilised existence overlooks the fundamental object behind town planning, and all the Acts of Parliament and planning paraphernalia attached to it.

Too often town planning tends to lose itself in a welter of imponderables such as the population in the year 2000, the effect of the motor car, the helicopter, and the atomic age on the people's future mode of living; yet large numbers still live and work among the debris of the first industrial revolution.

Town planning has been inspired by a desire to ensure a pleasant and healthy environment in terms of space and aesthetics, and to provide for all those facilities which go to make up a thriving and happy community. There is perhaps no greater satisfaction to be derived from the part to be played in the planning of a city than to be concerned with implementing the portion of housing development which is the responsibility of the local authority.

Since January, 1950, the design and construction of Corporation houses, flats, and maisonettes and the planning of the estates have been the author's responsibility. Large neighbourhood estates of 4,000, 5,000, 8,000, and 10,000 people respectively are involved in this work and more than 9,300 dwellings have been completed. They comprise a great variety of accommodation ranging from bungalows and recreation centres for aged people, houses, three-, four-, five-, and eight-storey flats and maisonettes, and shopping centres. Great care has been taken to produce a high standard of architecture and building construction with variety in design coupled with imaginative and spacious planning exploiting the difficulties of very hilly sites to this end.

WOOLWICH AUTOMATIC CAR PARK NEARING COMPLETION

THE roof units of a new automatic nine-storey car park at Woolwich are now being placed in position and the building is expected to be completed in April. It will be the first such car park to be erected for a public authority in the United Kingdom.

Founded on bored piles, the building is 116ft. by 55ft. on plan, excluding the end staircases, and approximately 82ft. high overall. The ground floor slab acts as a tie for the piles and obviates the need for special beams. A series of over 3,000 precast concrete units have been used for the superstructure which is built up on a system of frame units, cross-beams and floor slabs.

Problems were encountered in the foundation works. An old road used to run over the site and a main sewer of the ancient egg-shaped type runs at a depth of about 25ft. below. In addition,

each end. The bracing forms a V between exterior and interior frame columns at first, third, fifth and seventh floor levels, and an inverted V at ground, second, fourth and sixth floors. There is no bracing at eighth floor level.

The structure will have no cladding. The 5in. precast concrete end walls of the central bay, through which the cantilevered stairs are bolted, are required for fire resistance, and the introduction of 4in. thick infill panels above the lift entrances on the long elevation allow the corner and central columns to be omitted for easier access to the lifts.

The frame units are precast in the Truscon picture frame system with, in this case, the bottom member omitted to produce a "goal post" elevation of top beam and two half columns.

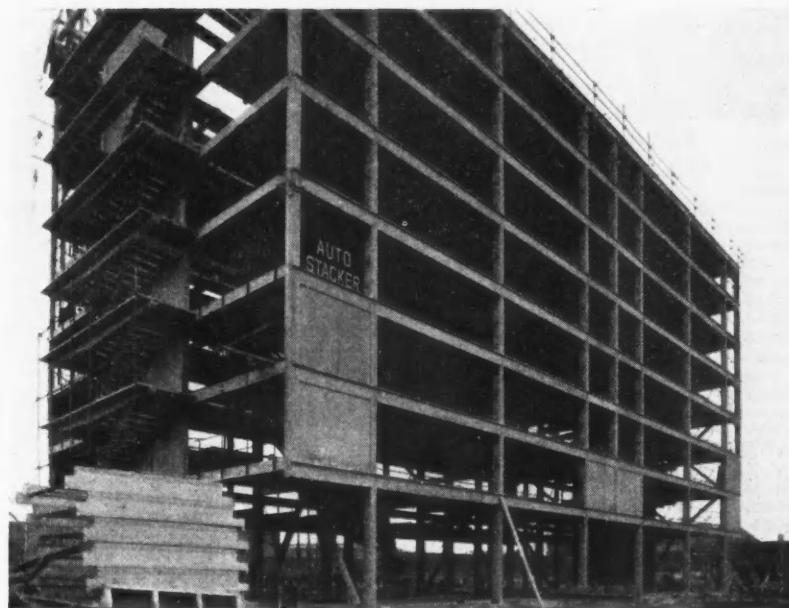
The size of a unit varies according to its position in the structure, and there are several types. The length of the top

long by 6ft. 8in. wide, and the central bay contains the four lifts, one at either end and two in the centre, and the rails for the powered transporter.

Parking will be a one-man operation, carried out entirely by remote control from a kiosk at ground level. The motorist will be directed to drive his vehicle on to powered conveyors in front of one of the four lifts. If he wishes he can then lock the car. The lift will take it to the required floor and the powered transporter that forms the lift platform will move out from the lift structure and automatically stop opposite a pre-selected parking space. Powered conveyors under the wheels of the car will move it into the space.

When the motorist leaves he will be given a key which, when surrendered to the attendant, on return to collect the car, can be inserted into the control panel to start the recovery cycle. A complete parking or recovery cycle will take an average of 50 seconds.

The architects to Woolwich Borough Council for the building are T. and P. H. Braddock, F.R.I.B.A. Design and construction is being undertaken by Truscon, Ltd., on behalf of Auto-Stackers, Ltd., and the sub-contractors for the bored piles were Frankipile, Ltd. The mechanical installation is being carried out by Ace Machinery, Ltd., the electrical motor control equipment by Dewhurst and Partners, and the electronic supervisory control equipment by British Standards Telephones and Cables, Ltd.



The Woolwich car park under construction

24 high-power cables run the full length of the building at depths varying between 3ft. and 5ft. below ground level.

To sink the piles without damaging either sewer or electric cables it was found necessary to move the cables to clear pile locations and pits, and make all piling work the bored type to avoid vibration. Asbestos cable ducts are incorporated under the structure to provide for the possible replacement of cables in the future.

All units of the structure above ground are precast on the site with the exception of the roof purlins, which are prestressed and were made at Truscon Works in Manchester. The concrete throughout the building has an exposed surface straight from the forms. The use of a limestone aggregate in the concrete for the frame and beams enables the minimum column dimension to be reduced to 9in. while at the same time maintaining L.C.C. requirements for fire resistance.

There are four lines of the frame units, running the length of the building on plan and defining three bays. They are tied at each floor with precast concrete cross-beams and floor slabs that transmit the wind forces on the long elevation to a series of inclined braces. There are three groups of these windbraces in each of the outer bays, one in the centre and one near

beams varies from 8ft. 10in. to 20ft. and the height of the columns from 7ft. 5in. to 12ft. 4in. In cross-section the columns for the long spans are 12in. by 4½in. and for the shorter 10in. by 5in. The L-section beams are from 8½in. to 12in. deep and have a maximum width, at the bottom of the L, of between 14in. and 16in.

Perimeter frames above ground level have tubular metal guard rails cast into them, serving the twofold purpose of a stiffening during erection and a safety rail after. The units are bolted together and subsequently pressure grouted.

The floor slabs are composed of 1½in. thick precast reinforced concrete slabs to form the base of the parking bay floors. The slabs are then covered with a 1½in. structural screed of in-situ reinforced concrete.

Function

Negotiations are in progress with Woolwich B.C. for a head lease to be taken up on the building by Shell-Mex and B.P., Ltd. Dagenham Motors as sub-lessees of Shell-Mex and B.P., Ltd., will operate the Auto-Stacker, which will provide parking space for 256 cars.

A typical floor plan is divided into three equal bays running the length of the building. The two outer bays are each divided into 16 parking spaces 17ft. 6in.

SEWER INSPECTION BY TV AT WANDSWORTH

The Wandsworth area of London was badly hit by bombing during the last war and this resulted in a high incidence of damaged underground draining. In the past, local authorities have sometimes used photographic cameras for inspecting underground pipes but it was estimated that with this method it would take many years to complete an inspection of all the drains in Wandsworth.

With television in mind as a possible answer to their problem, the Wandsworth Borough Council approached Pye T.V.T., Ltd. Trials with one of their stainless steel nuclear reactor inspection cameras in a drain in South London showed what TV could do, and later an experimental housing of aluminium was constructed to be used with the standard Mark IV industrial television camera. Adequate lighting was provided by two 50-volt projector lamps, fitted on either side of the lens opening. Overheating of the staticon tube was avoided by installing a small fan—the effectiveness of this was proved at the recent Industrial Photographic and Television Exhibition when the camera worked 10 hours a day for five days, with no loss of efficiency.

The whole assembly can either be pushed through a pipe with rods or it can be pulled through with ropes. Small wheels are fitted to the base of the housing to facilitate this. Experience has shown that the maximum manageable length to inspect at a time is from 125ft. to 150ft. The camera is capable of inspecting pipes as small as 8in. in diameter.

Although the original requirement was for sewer pipe inspection it is expected that this idea will be expanded for other fields.

Bexley Proposal

Bexley Borough Council's highways committee have recommended that the Borough Engineer should be authorised to purchase suitable closed circuit television equipment for the inspection of local sewers.

WORK STARTS ON £1½M. UNIVERSITY BLOCK

A START has been made on the construction of a new biology block at Edgbaston for the University of Birmingham. It will cost about £1½ million.

John Laing Construction, Ltd., have been awarded the contract, which is scheduled for completion by June, 1963. There will be a nine-storey tower, 130ft. high and measuring 190ft. by 40ft., constructed on a slab foundation with columns and beams of in-situ concrete.

Large teaching laboratories with unrestricted floor space will be a feature of the building, and concrete beams of 40ft. span are to be placed in intermediate positions between the vertical columns, allowing service ducts to run the full height of the building. Cladding will be of precast concrete panels with Portland stone at the top of the tower, and a glazed screen will enclose roof-top plant rooms. A ramped causeway on the south side will lead to workshops in the basement.

There is also to be a three-storey quadrangle building on piled foundations, measuring 220ft. by 240ft., each wing being 40ft. wide and 40ft. high. Columns and beams will be of in-situ concrete and cladding will be in black bricks with Portland stone dressings. Both blocks will contain mechanical ventilation and convector-type heating.

Accommodation is to be provided for the departments of zoology, botany, applied biochemistry, medical biochemistry and pharmacology, physiology, genetics, and micro-biology, with lecture theatres and common rooms for students and staff.

The architects are Playne and Lacey, and the consulting engineers are Ove Arup and Partners.

SCOTTISH MUNICIPALS SPRING MEETING

The Scottish Branch of the Institution of Municipal Engineers are to hold their spring meeting at St. Andrews Halls, Berkeley Street, Glasgow, on Friday, February 24.

The aim of the meeting is to encourage younger members to take part in the discussion after the introduction of the following subjects: "Road Gritting in conditions of Snow and Ice," by J. F. White, divisional surveyor, Perth C.C.; "Street Irregularities and Encroachments," by A. C. Duncanson, deputy county surveyor, Ayr; "Drainage," by C. Eddie, burgh surveyor, Ayr; "Inspection by Dean of Guild or other Building Control Authority," by H. V. McNaughton, deputy burgh surveyor, Paisley.

TALL BUILDINGS: DISCUSSION ON CONTRACTORS' PROBLEMS

A discussion on contractors' problems in relation to tall buildings will be held at the Brixton School of Building on February 1, at 6.45 p.m. The principal speaker will be Mr. A. W. Barker, of Sir Robert McAlpine and Sons, Ltd., the chairman being Mr. E. J. Cook, immediate past-president of the L.M.B.A.

There will be no charge for admission and tickets may be obtained from the Secretary, Brixton School of Building, Ferndale Road, London, S.W.4.

SCOTTISH ELECTRICITY BOARD PLANS £5M. STATION

The South of Scotland Electricity Board proposes to construct a 60-MW slurry-burning power station in Fife at an estimated cost of about £5 million. The new plant is expected to be commissioned in 1965.

LONDON SAFETY GROUP'S BRAINS TRUST

A BRAINS TRUST on questions concerning safety was the main item at a recent meeting of the London Building and Engineering Contractors Accident Prevention Group.

The panel consisted of Mr. W. D. Short, H.M. Senior Inspector of Factories; Mr. L. C. Kemp, secretary to the Building Group, London and Home Counties Branch, Transport and General Workers Union; Mr. J. A. Hayward, superintending safety officer, John Laing and Son, Ltd.; and Mr. B. A. C. Whyte, superintending safety officer, Woodall-Duckham Construction Co., Ltd.

Factors fully discussed by the brains trust, among other questions, included the possibility of safety bonus schemes bringing about a higher degree of accident prevention; the projected new code of construction regulations to be issued by the Factory Department, and the advisability of publishing them under one cover or in the four separate parts as now proposed; the specific points which the panel would emphasise to a safety meeting of steel erector foremen; and the attitude of the Factory Department toward High Court judgments which might be given against the intention of the Building Regulations.

INDUSTRIAL BUILDING PLANS Big Rise Last Year

During 1960, industrial building schemes approved by the Board of Trade were 40 per cent. greater than the year before in numbers, and nearly 70 per cent. greater in the total area of building planned.

Provisional figures of building schemes for which Industrial Development Certificates were issued during the fourth quarter of 1960 are as follows:

	No. of Schemes	Total Area (mil. sq. ft.)
Standard Regions:		
1960 4th quarter: Northern	38	0.9
East and West Ridings	62	1.5
North Midland	57	1.9
Eastern	86	2.0
London and South Eastern	122	2.4
Southern	41	2.0
South Western	48	1.1
Wales	33	0.8
Midland	67	1.8
North Western	76	2.3
Scotland	38	1.0
Great Britain:		
1960 4th quarter	668	17.8
3rd quarter	759	21.8
1959 4th quarter	700	15.0
3rd quarter	611	13.4
Total 1960	3,443	98.2
Total 1959	2,459	58.5

From the beginning of the second quarter of 1960, the figures relate to all schemes approved under the Local Employment Act, 1960, and for earlier periods to schemes of over 5,000 sq. ft. in manufacturing industry only.

MEDWAY TOWNS' MOTORWAY Cementation to Prepare Approach Roads

A £150,000 contract for work in connection with the strengthening and widening of the approach roads to the proposed Medway towns' motorway has been obtained by the soil stabilisation department of The Cementation Co., Ltd. Some 60 miles of road—extending from Bluebell Hill, south of Chatham, to Faversham Without—will be affected. Work on the contract has just started.

The project, which is agency service work for the Ministry of Transport, is being carried out under the control of Kent county surveyor, Mr. H. Bowdler.

Late Construction News

GREENOCK ACADEMY TENDERS.—Tenders are due to be returned shortly for the erection of Greenock Academy. Plans are by Fyfe, Gerrard and Paton, 18 High Street, Greenock, and the consulting engineers are Donald Smith, Seymour and Rooley, 204 West Regent Street, Glasgow, C.2.

WATES HOUSING CONTRACTS.—Two large housing contracts in Kent have been secured by Wates, Ltd., 1258 London Road, London, S.W.16. One is for an eight-storey block of 47 flats at Havle Road site, for Maidstone B.C., worth £96,577, and the other is a £238,306 scheme for 116 flats and maisonettes for Erith B.C. at their Appian Way site.

LONDON HOTEL EXTENSION.—Excavation work is in hand on the erection of a seven-storey extension at 20-26 Talbot Square and 1-24 Conduit Place, Paddington, for Stephen Court, Ltd. Tersons, Ltd., are carrying out the work at a cost of £260,000. The architect is J. Brewster, 16 Porchester Place, London, W.2. Cyril I. Silver, 42 Baker Street, London, W.1, is the quantity surveyor and P. R. Rose, 7 Connaught Place, London, W.2, is the consulting engineer.

NEW KENTON CHURCH.—Hussey Bros. (Builders), Ltd., 60 Queensway, London, W.2, have been awarded a contract for building a new All Saints R.C. Church at Kenton High Road, Kenton, Middx. The architect is John E. Sterrett, 21a Ashley Place, London, S.W.1.

BURNLEY REDEVELOPMENT.—Work is about to begin on the redevelopment of the Pickup Croft area of central Burnley. The £100,000 new building will include shops and offices, cafeteria and licensed bar for Massey's Burnley Brewery, Ltd., and a social club for Joseph Lucas, Ltd. Designed by Hubbard Ford, 24 Cornfield Road, Eastbourne, it will be erected by Mullen and Durkin, Ltd., Trafalgar Street, Burnley.

NEW CAMBRIDGE COLLEGE.—Tenders are expected to be invited next month for the erection of the first stage of a new building for Fitzwilliam House, Cambridge, providing part residential and part collegiate accommodation. The architect is Mr. D. Lasdun, of Fry, Drew, Drake and Lasdun, 63 Gloucester Place, London, W.1.

BLUNDESTON PRISON.—The Ministry of Works have placed a £668,000 contract with Lavender, McMillan (Contractors), Ltd., for building a new prison at Blundeston, Suffolk. Work is about to start and is scheduled for completion in under two years.

EASTERN FEDERATION OFFICERS ELECTED

At the annual general meeting of the Eastern Federation of Building Trades Employers, held at Cambridge recently, officers for 1961 were elected as follows:

President—Mr. C. E. Wadley (Hutton Builders, Ltd., Birch, Colchester); senior vice-president—Mr. L. B. Sell (H. C. Janes, Ltd., Luton); junior vice-presidents—Mr. S. G. Johnson (S. F. Johnson and Co., Leigh-on-Sea), Mr. J. Durston (Brentwood) and Mr. M. J. Youngs (J. Youngs and Son, Ltd., Norwich); hon. treasurer—Mr. B. T. Henman (T. and E. Neville, Ltd., Luton).

AWARD TO DISTINGUISHED AMERICAN ENGINEER

The Council of The Institution of Mechanical Engineers have awarded the 1961 James Watt International Medal to Professor Dr. Theodore von Karman, Ph.D., in recognition of his important contributions to the advancement of mechanical engineering science.

International Construction

DANISH BRIDGE CONNECTS ISLANDS IN LITTLE BELT

From a Special Correspondent

A NEW bridge has recently been constructed over the Sio Sound, between the islands of Taasinge and Sio, for the Svendborg County Council, Denmark, at a cost of Dan. Kr. 3 million. It forms part of a general scheme for providing road connections between the islands of Funen, Taasinge, Sio and Langeland.

Although the idea of providing such connecting links was brought forward as long ago as 1937, it was not until 20 years later that a government grant was obtained for the Sio Sound section, following which the project was put in hand.

Use of Prefabrication

Since this waterway is rather shallow and, being without any channels, is navigated only by small fishing craft, a low bridge was considered suitable for the purpose; an embankment would not have met the requirements because of the need for the Sound to be kept open. Both ends of the present structure, however, take the form of embankments and these are connected by a 540m. concrete bridge section with 20 spans each 27m. in length, in addition to two abutment spans. The large number of equal size bridge

550m. long, while the embankment on the eastern side is about 350m. long. Both are extended into the water until it becomes 1.8m. deep. At these points the concrete structure commences, the maximum water depth in the line of the bridge being approximately 3.5m.

Strata Tests

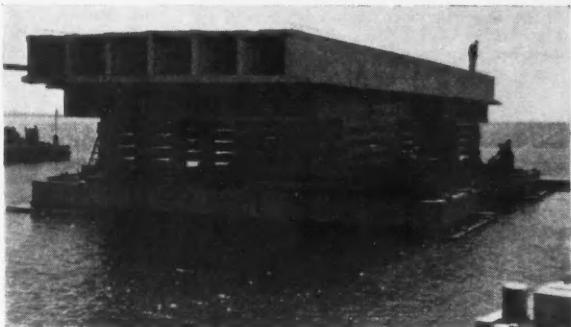
Prior to the detailed planning of the new Sio Sound bridge, trial borings, strata tests and evaluations were carried out by the Danish Geotechnical Institute and they revealed that deposits of plastic clay, known as Little Belt clay, was to be found within the moraine layers and these complicated the plans for 10 of the bridge pier foundations, though they had no appreciable effect on the embankments, since soft mud there was found only to a very slight extent.

The levels of the different strata varied considerably at different places. For example, two borings at the location of one bridge pier, made 4m. apart, showed, at one, a 4m. thickness of moraine clay, followed by a 2m. layer of plastic clay and then by more moraine clay, while, at the other there was 6m. of plastic clay followed by moraine clay.

The strata under all the bridge piers had, in fact, sufficient bearing capacity, but the difficulty of troublesome settlement occurred in those areas where the plastic clay was present.

This necessitated the driving of wooden piles to a depth of 14m. to 15m. below mean water level or about

11m. below the bottom of the foundations for the piers in order to transfer much of the pile loading through the plastic clay to the moraine. This was expected to



Floating one of the prefabricated bridge spans out to the site

have the effect, not only of considerably reducing settlement, but also of causing the settlement to be more uniform. By later clinometer measurements this expectation was proved to have been correct.

Sand-fill Embankment

Constructed under separate contracts, the two sand-fill embankments were given a crest width of 14.40m. with a 7m. carriageway running down the centre and space for future cycle paths on either side, the latter to be separated from the carriageway by a 1m. wide grass verge. A safety kerb has been built along each edge of the embankments, the sides of which fall away into the water at an incline of 1:2.

At both toes of the embankment additional protection has been provided up to a height of 1m. above the mean water-level. This takes the form of a shingle bed covered with boulders to resist the action of the waves. Above this stone wall, the sand filling has been given a 30cm. layer of shingle up to a height of 3m. above the mean water level and this has been covered by 10cm. thick reinforced concrete slabs, the lowest of which is supported underneath by an impregnated timber batten resting on wooden piles.

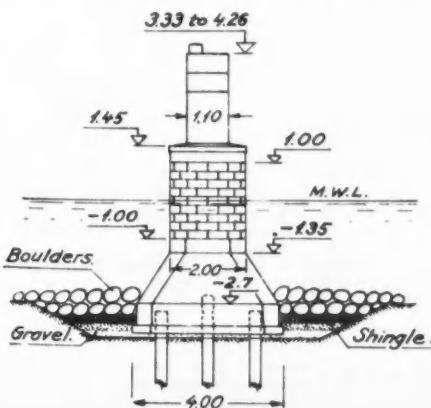
Three types of reinforced concrete caissons for the bridge piers were pre-



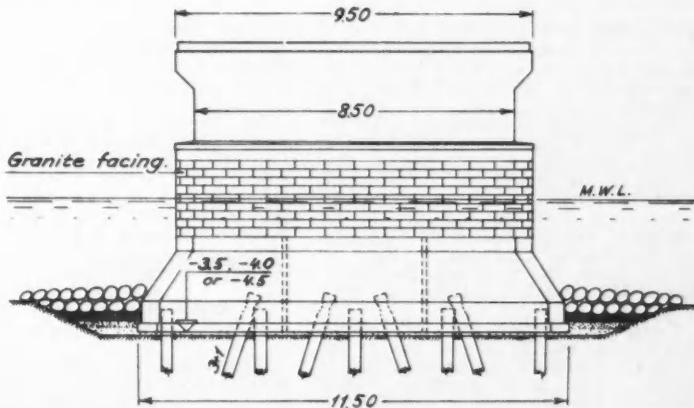
Concrete caisson being towed between two pontoons out to site

spans, in fact, made possible a considerable use of prefabrication, which was carried out at a site near the embankment. The western embankment is approximately

those areas where the plastic clay was present. This necessitated the driving of wooden piles to a depth of 14m. to 15m. below mean water level or about



Front and side elevations of piers as erected



fabricated at the site plant, each type being similar apart from having differing heights for their vertical walls. Each caisson consisted of three concrete cells built up on a wooden platform.

For the construction of the bridge piers, each site was excavated to the required depth and levelled off with a layer of gravel. Each caisson in turn was towed out to its own particular site suspended between two pontoons. There, it was sunk onto its prepared bed and filled with concrete cast under water. On the top of the cellular caisson was added a wooden cofferdam.

After the concrete in the caisson had set the water was pumped out of the cofferdam and the concrete surface cleaned. The pier, with its granite facing, was then erected inside the cofferdam, which was thereafter removed for re-use. The 1.10m. by 8.50m. pier column was then built up from the top of the granite faced pier. Joining the bridge proper to the two embankments are short spans, each of which is supported by two piers. One of these piers is completely buried in the embankment and consists of two pillars. The other is sited at the point where the embankment slope meets the water level.

Bridge Spans

Of box-type cross-section with ribs approximately 1.35m. high, the light and slender bridge spans are of cellular construction, 9.50m. in width, 1.45m. in maximum depth and containing six cells in all. The top deck slab not only forms a bearing plate but also provides an effective compression flange. The under-slab is necessary to allow space for the prestressed main reinforcement, while the rigid connection between the slab and the ribs involves a strong continuous traverse stiffening, capable of high load distribution, so that cross-walls or cross-beams are not necessary. The deck slabs project over each side of the bridge span to provide for a pavement.

Prestressing

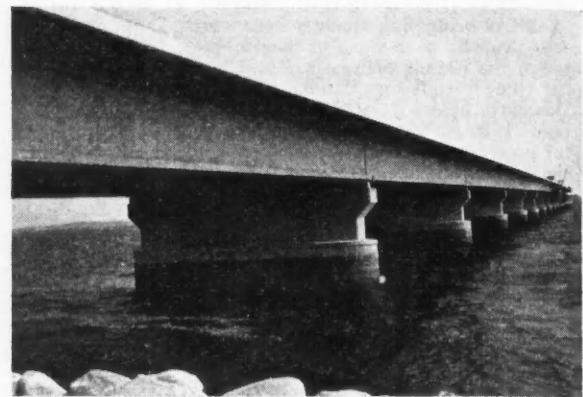
For longitudinal prestressing of the under-slab and the bottom portions of the

ribs, which was carried out according to the Dywidag system, the 26mm. diameter round steel bars were supplied in 27m. lengths so that they would extend the whole length of the spans without joints. The bars were fabricated of special steel with a minimum yield strength of 8,000 kg./cm.² and an ultimate tensile strength of 10,500kg./cm.². A tinplate tube was placed around the bars, which, at one end, were provided with an anchoring arrangement and, at the other, a tightening device. Tightening of each span was carried out about five days after the concrete pouring with rapid-hardening cement had been completed and when the concrete had set sufficiently, prestressing being taken up to 6,500kg./cm.². Following the tightening, cement grout was injected into the space between the bars and the tubes. In all, some 66 Dywidag steel bars were used for each span, two being placed in the lower portions of each rib and the rest being spaced at about 1.8 cm. centres throughout the under-slab. These

were the only sections prestressed, the remaining reinforcement being of Tentor steel or, for secondary reinforcement, ordinary round bars. The step-up from the 7m. wide carriageway to the 2.50m. wide pavements was constructed as part of the reinforced concrete work, no kerb stones being used. Each bridge span, without insulation and surface layer, weighs about 350 tons.

Originally it had been intended to prefabricate the bridge spans at the site plant in two longitudinal sections, to float these out to the piers and join them together at the centre line of the bridge on erection.

The prime consideration in coming to this decision was the lowest depth of water of about 1.8m. at the bridge, which determined the weight of the components that could be floated out to their positions at the site. Since, however, the contractor was able to float sections up to 300 tons out to the various piers, it was subsequently decided to deliver full width spans minus the pavement sections in this way. The pavements were added later with the help of mobile scaffolding which



Completed bridge

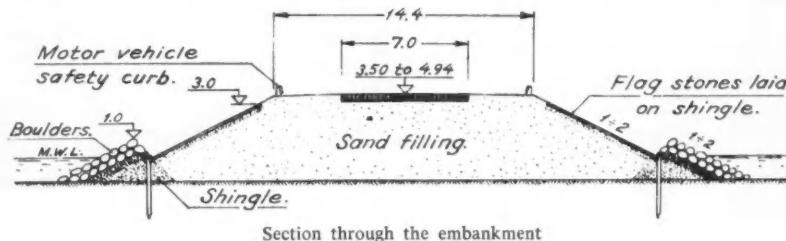
made possible the casting of these sections in 45m. lengths in one operation. The pavements are projected out from the bridge spans at an incline of 25 per cent.

Aggregates and sand for the concrete were obtained from the sea at a place where they were free from lime. Rapid hardening cement used in the water/cement ratio of approximately 0.35 gave the average cylinder resistance of approximately 400kg./cm.² after 14 days. Bridge span production times were gradually reduced from an initial period of some months to only five weeks. The same formwork for the caissons and bridge spans was used for successive units.

Consultants and Contractors

The bridge was designed by Prof. Anker Engelund, D.Tech., in co-operation with Mr. Ejner Grimstrup, county surveyor of Svendborg, and with the assistance of civil engineers Steding-Jessen and Poul Moller Nielsen. The contractors were A. Jespersen and Son.

The writer is indebted to Prof. Engelund for material from which this article has been prepared and for photographs to illustrate it.



Section through the embankment

CATERPILLAR ACQUIRE FRENCH MANUFACTURING PLANT

CATERPILLAR TRACTOR CO., Peoria, Illinois, U.S.A., has announced that its new subsidiary, Caterpillar France, SA., has acquired a manufacturing plant in Grenoble, France.

The subsidiary has purchased a 150,000 sq. ft. facility from Groupe Richier, the French manufacturers of cranes, road rollers, cement mixers, and—at Grenoble—crawler tractors.

Mr. W. J. Bornholdt, president of the subsidiary, said production of Caterpillar D4 Tractors is scheduled to begin in March. Later, the plant will also manufacture 955 Traxcavators. It employs about 350 people.

Caterpillar Overseas S.A., of Geneva, Switzerland, will handle the sale of the French subsidiary's products outside of France. (The Swiss company, whose formation was announced in December, is taking over the selling and servicing of Caterpillar products primarily outside the

Western Hemisphere.) The purpose of the new subsidiaries is to strengthen the company's position outside the United States, particularly in the European Common Market.

Mr. Bornholdt also announced completion of his initial staff organisation for Caterpillar France. Included in the appointments is that of W. W. Sellers as quality control manager. Mr. Sellers was previously quality control manager at the company's Glasgow plant.

ROCK-ROVER 7014 FOR MONTEVIDEO

Frederick Parker, Ltd., Leicester, have been awarded a contract, worth £12,000, for the supply of a Rock-Rover 7014 rock crushing plant to the Dept. de Colonia, Montevideo, Uruguay.

PAKISTAN HOTEL PROPOSALS

Negotiations for the erection of a 300-room hotel in Karachi have been completed between Pakistan International Airlines and Intercontinental Hotels Corporation, a wholly owned subsidiary of Pan American World Airways, Inc.

The hotel, which is estimated to cost approximately \$7m. will be erected on a 12-acre site in the Clifton area of Karachi, overlooking the Arabian Sea. Ground-breaking is tentatively scheduled for August of this year, and the hotel will be opened in 1963, although no architects or contractors have yet been appointed. It will be designed under the supervision of Intercontinental Hotels, and will be operated as a part of its world-wide chain of international hotels.

In addition to this project it has been announced that an affiliate of Pakistan International Airlines will be concerned, in association with Intercontinental Hotels Corporation and other Pakistani investors in building major hotels at Rawalpindi, Lahore, and other important cities of East and West Pakistan.

International Construction

SILO CONSTRUCTION IN AMSTERDAM



Aerial view of the elevator block and silos

WITHIN a period of 19 days a total of 42,373 cu. ft. of concrete was placed on the walls of a new building in Amsterdam by the rising formwork method of construction, employing hydraulic jacks.

At the Vlothaven in Amsterdam, the International Graintranshipping Co., Amsterdam, Ltd., have commissioned the building of two jetties to accommodate shipping up to 60,000 tons, which are to serve 24 silos each with a capacity of 2,200 tons of grain storage. These silos, together with an elevator and office building block have been built by the rising formwork method, using the British-made Tangye hydraulic climbing jacks.

The elevator and office building is 177ft. above ground and 23ft. below ground, forming a basement in which machinery is installed. It was on this building that this high rate of construction was achieved.

The hydraulic jacks were linked together by a ring main from one hydraulic pump and motor. Equal pressure was therefore applied to each jack, ensuring that they all rose an equal amount under the direction of one man on the pump control valve. The accompanying drawing shows

the horizontal section of the elevator building and the positions of the 80 jacks used.

Steel girders formed yokes for the jacks tying them to the shuttering which was $\frac{1}{4}$ in. thick plywood with plastic facings providing a smooth anti-attrition surface. The walls were poured first and floors cast later in situ. Some of the lower of the ten floors required were started before the walls were actually complete, so that at the end of 19 days the walls were complete and also six of the ten floors.

The silos are 115ft high and 36ft. in diameter. They were constructed in groups of three or four, the complete shuttering being tied together and rising as one. Twenty jacks were employed on each silo with the usual steel yokes and girders, and the circular form shuttering was made of fir wood. Each silo required the pouring of 8,827 cu. ft. of concrete. Continuous mixing of the concrete was carried on at floor level on the site and transported to the shuttering by means of two Liebherr cranes, type 45K/55 and 25.

The Tangye hydraulic climbing jack used is capable of lifting three tons. It climbs a bar, usually of 1in. diameter, which passes through its centre and is

gripped by two pairs of grips. These circular grips are mounted on a spindle, off centre, and when closed on to the bar, allow a movement of the jack in an upward direction only.

The buildings have been built for N.V. Internationale Graanoverslagbedrijf Amsterdam by van Waningen and Co., Rotterdam Z. The architects are Architectenbureau Pierre Cuypers of Amsterdam, with T. V. Aulkaer, Odense-Danmark, as consulting engineers.

£40M. FOR COLONIAL DEVELOPMENT IN 1960

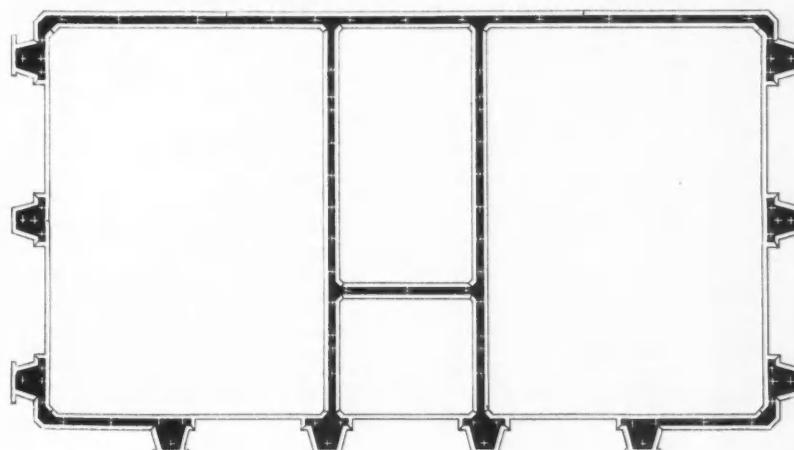
Grants and loans approved under the Colonial Development and Welfare Act during 1960 amounted to £40,612,353, including £2,817,989 for research. This compares with £27,850,204 approved in 1959, with £16,201,062 in 1958 and with £18,740,767 in the previous year.

Money made available during the year for schemes to benefit Britain's overseas territories included £10,353,057 for education, £7,721,088 for road development, £4,151,917 for agriculture and veterinary services, £2,770,221 for medical and health services, £2,414,973 for industrial development and £1,626,229 for water supplies and sanitation.

Grants approved during November and December amounted to £2,284,392. Largest of these 87 grants, including 15 for research, was £245,000 to build a new college library, administrative block and extension to Gloucester Hall at the Royal Technical College of East Africa, Nairobi.

Other grants to East Africa included: £223,855 towards the cost of forest development in Kenya during 1960-61; £78,455 for improvements to the Great North Road in Tanganyika and £52,600 to improve four of the 20 ferries maintained by the Tanganyika Government on the main road system, by reducing the crossing times, making them safer or increasing their capacity.

Other grants approved during the two months included: £125,000 to build 30 houses for junior staff at the University College of The West Indies; £189,467 for Sarawak for the construction of the 30-mile Simanggang-Engkilili feeder road and for building a 15-mile feeder road from the Sarikei-Binatang road to Nanga Pakan; and £184,450 towards the cost of a land settlement scheme at Black Bush Polder, British Guiana.



ELEVATOR BUILDING

Horizontal scheme of the positioning of the 80 Tangye climbing jacks in the sliding moulds. + = Pos. of jacks.

International Construction**PORT OF AUCKLAND
£10,000 Model to be Built**

THE Auckland Harbour Board are to purchase a model of the Port of Auckland, New Zealand's largest port, for the further study of navigational and berthing problems. It will be built at the D.S.I.R. Hydraulics Research Station at Wallingford, Berks., at a cost of £10,000.

The Harbour Board consider the study as a safeguard against worsening navigation conditions in the planning of port expansion and reconstruction. The study should indicate clearly what advantages if any, could be gained by minor realignment of wharves, removal of the wave screen under King's Wharf and, say, modification of the length and shape of the eastern breakwater. It may also indicate the effect on the current strengths and patterns in the port area of any reclamation of Shoal and Hobson Bays.

Model Dimensions

The model will be about 85ft. by 60ft. and will represent about half the area from the Harbour Bridge to Hobson Bay.

The 36ft. depth of water will be represented by about 6in. Prince's Wharf will be about 4ft. or 5ft. long. About 4,300 gallons of water will be required to produce the tidal range.

It will take about a year to build the model and the study is expected to occupy another year.

The scale of the model will be about 1 in 250 horizontal and 1 in 50 vertical.

COSTAIN RHODESIAN CONTRACTS

Richard Costain (Africa), Ltd., recently awarded a £187,000 contract for African housing by the Salisbury City Council, has also been awarded a housing contract valued at £380,000 by the Southern Rhodesian Government. Work will start soon and includes the building of 800 houses and two schools in the Government Township of Dangamvura at Umtali.

The contract is of the package type and includes the design and construction of all services within the township, including roads, water and sewerage reticulation, and sewage disposal works.

I.R.F. PACIFIC REGIONAL CONFERENCE

THE International Road Federation, in association with the Australian Road Federation, is holding a Pacific Regional Conference in Sydney, Australia, from February 27, to March 3, 1961, which will be attended by representatives from some 16 countries in the Pacific area.

The theme of the conference will be roads as an essential economic and social investment in the modern age of motorised transport. Subjects for discussion will include the rôle of international financing and technical assistance in the road and road transport fields; road financing; support for expanded highway programmes; new developments in road research; the future of highways and highway transport; the maximum utilisation of road facilities; highway construction and maintenance and traffic engineering.

Principal Speakers

The U.K. and U.S.A. delegation will be led by Sir Reginald Biddle, C.B.E., J.P., and Mr. J. R. Steelman, chairmen of the I.R.F. London and I.R.F. Washington offices respectively. Among the principal speakers will be Mr. Christopher T. Brunner, Director, Shell-Mex and B.P., Ltd., and Vice-chairman, British Road Federation; The Hon. John A. Blatnik, United States Congress, Member of Committee of Public Works of the House of Representatives; Mr. D. C. Greer, State Highway Engineer, Texas; The Hon. W. S. Goosman, Minister of Works, New Zealand; Mr. J. Burke Knapp, Executive Vice-president, International Bank for Reconstruction and Development; Dr. R. S. Millard, Head of the Tropical Section, U.K. Road Research Laboratory.

A DROTT IN CHURCH

BECAUSE water seeping into the foundations of the Lutheran church of "The Holy Trinity" in Vaasa, Finland, had made the building unsafe, religious services were cancelled for six weeks while a British-built International Drott B-6K-3 Skid Shovel was called in to help with the repair work.

The route from the main doorway traversed narrow passageways and low arches, often allowing the Drott only a few inches clearance. A wooden floor was



Shovel tipping from doorway

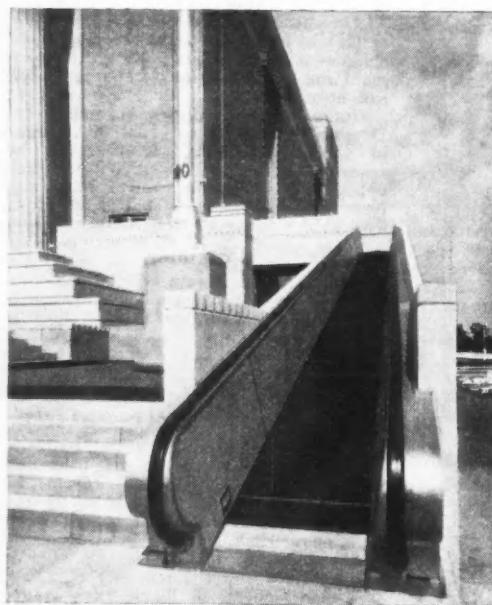
removed to give access to the basement 12ft. below ground level which the machine reached by means of a specially constructed ramp.

Working between brick and boulder pillars the tractor shovel excavated to reveal the source of the trouble, removing some 1,000 cu. yd. of clay and rubble in the process. Later, new foundations were laid which, it is hoped, will give the 100-year-old church a new and indefinite lease of life.

The Drott, a "Four-in-One", was supplied to the contractor, Knut Järvinäki, by Suomen Maanviljelijän Kauppa Oy., distributors of International Harvester equipment in Finland.

POWER SURVEY IN BRITISH COLUMBIA

Sir Alexander Gibb and Partners, and Merz and McLellan have been appointed by the British Columbia Energy Board to carry out a survey of hydro-electric power schemes. The two firms will institute research into the cost of power generated from the Columbia and Peace Rivers and the relative costs of electricity supplied to consumers from these two sources.



The Speedramp installation

IN addition to a new sand-blasted facial appearance, the Joseph Taylor Robinson Memorial Auditorium, Little Rock, Arkansas, U.S.A., now has a Speedramp passenger conveyor system for the convenience of auditorium visitors.

Manufactured by Stephens-Adamson Mfg. Co., Aurora, Illinois, the conveyor carries passengers 63ft. up a 15-degree incline. Visitors eliminate needless steps by riding the 42in. wide unit to the auditorium entrance which is 16ft. 3in. above street level.

The installation features enclosed balustrades and moving handrails. In addition, it has a new "floating comb" plate designed to meet the requirements of spike-heels. The "floating comb" plate works in conjunction with a special grooved conveyor belt manufactured by the Goodyear Tire and Rubber Co., Akron, Ohio.

MARTIN-BLACK FORM INDIAN COMPANY

Martin-Black, Ltd., Coatbridge, Scotland, announce the formation in Calcutta of Usha Martin Black (Wire Ropes), Ltd.

The company has been formed as a result of collaboration between Usha Automobile and Engineering Private, Ltd., of Calcutta, and Martin-Black and Co. (Wire Ropes), Ltd. Mr. W. S. Black and Mr. John Goodlet, directors of the latter company, have been appointed to the board of Usha Martin Black (Wire Ropes).

It is the intention to erect a new factory at Ranchi in the State of Bihar, and to install plant for the production of high-tensile steel wire and steel wire rope. The initial capacity aimed at is approximately 3,600 tons per annum each of wire and wire rope, but the factory layout is designed to enable this capacity to be doubled.

MALAYAN RAILWAYS' CONTRACT

I.S.C.A. Foundry Co., Ltd., have received a further order of about £37,000 for the supply of permanent way points and crossings for the Malayan State Railways.

MOTOR SHOWROOM IS ALMOST SEMI-CIRCULAR

AN unusual reinforced concrete motor showroom and car store, recently completed at Ewell in Surrey, stands in a prominent position at the junction with the Ewell By-pass. The site rises slightly from the road to give access to the front of the building, which is occupied by the single-storey showroom; a car store below, for use largely as an overflow for cars from the showroom, is reached from an access road at the back where the site dips sharply.

The building is almost semi-circular, a shape well related to the curve of the road it overlooks, and the cantilevered canopy on the main facade emphasizes the curve.

A system of 10 radiating portal frames of in-situ reinforced concrete supporting roof decking made up the showroom structure; their tapered outer columns are expressed as architectural features on the main elevation, providing the framing for eight large plate-glass windows below a canopy. The canopy is supported on tapered reinforced concrete brackets cantilevered out from each of the columns.

Brick has been used as an infilling in the two flanking frames to form side walls to the showroom and brick walls in conjunction with an existing 18in. concrete block retaining wall (over which the curved front of the showroom is built) form the sides to the car store.

The portal frames span 39ft. to the back of the showroom and give a completely clear floor space in which the cars are easily manoeuvred. The floor, which also acts as a roof for the car store below, is a 5in. reinforced concrete slab supported on the side walls and centrally by a wide beam 4ft. by 1ft. 6in. that runs along the length of the showroom floor and is carried, in turn, by 12in. by 12in. reinforced concrete columns.

The showroom floor has a 3in. thick "Linitol" composition finish; the side walls

of the showroom are rendered with a cement and sand mixture and painted—pale pink internally and white externally. The edges of the canopy and the roof overhang are painted in blue, the underside of the canopy and the interior roof soffit in a darker blue.

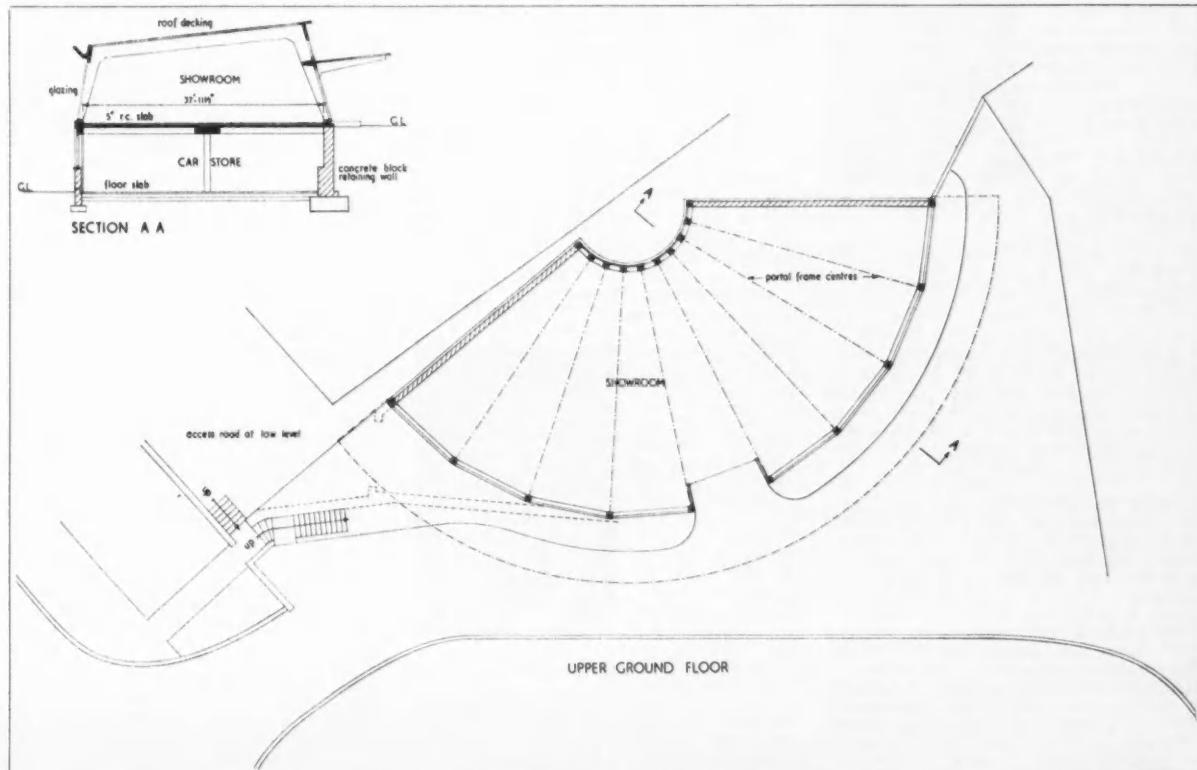
Special care was taken with the form-work for the structural concrete to ensure that a smooth surface was obtained, and both inside and out the concrete has been finished in a white thermoplastic paint directly applied.

Architects and Contractors

Architects for the building were William H. Arend and Son, and the general contractors were Land and Property Investments, Ltd. Truscon, Ltd., were responsible for reinforced concrete design and construction.



The completed showroom



Men and Movements

ELECTED on Tuesday as president of the London Master Builders Association for 1961, **Mr. R. F. Mansell, F.I.O.B., M.R.S.H.**, is chairman and managing director of R. Mansell, Ltd., the Croydon firm of builders founded by his father in 1908. Mr. Mansell, 51 years old, was educated at Croydon High School and received his technical education at Brixton School of Building. Following two years' site experience with the family business and two years' pupilship with a quantity surveyor, he entered the firm as an estimator-surveyor in 1930. He was appointed a director in 1932, managing director in 1939, and became chairman on the death of his father in 1958. The new president has been chairman of the Contract, Working Rule Agreement, Finance and General Purposes and the Maintenance Builders Committees of the Association and served on the Board of Administration for the Pupilship and Studentship Schemes. He has been a member of the London Regional Joint Committee since 1954, and was its chairman in 1958. Mr. Mansell is a Liveryman of the Worshipful Company of Masons and a Freeman of the City of London. At the Shirley Park and City Livery Bowls Club he puts down a nice wood.



R. F. MANSELL

Mr. A. J. Chandler, F.I.O.B., elected this week president of the South Wales Federation of Building Trades Employers for 1961, is a director of Hinkins and Frewin, Ltd. He is a past president of the Newport Association and a leading contractor member of the regional consultative committee of architects, quantity surveyors and builders. Other officers elected for 1961 were senior vice-president—**Mr. V. Rees Davies, F.I.O.B.**, of Swansea; junior vice-president—**Mr. Roger Edwards, F.I.O.B.**, of Tredegar, Mon.; hon. treasurer—**Mr. W. G. Bishop**, of Cardiff.



A. J. CHANDLER

C.A.V., Ltd., have announced the appointment of **Dr. A. E. W. Austen, B.Sc., Ph.D., A.M.I.E.E., F.Inst.P.**, as an executive director of the company. Dr. Austen, who was appointed chief engineer of the company in 1959 and was chief research engineer from 1946, joined C.A.V. in order to develop the research department.

Mr. I. M. Jeffrey, overseas representative, Expandite, Ltd., left London recently for a tour of North and West Africa. During his stay he is visiting engineers, architects and distributors in these territories.

Two new appointments in the lighting field have been announced by Philips Electrical, Ltd., for their south-east region. **Mr. H. D. Norris** has joined the company as a lighting engineer, and **Mr. M. H. Billett** has been appointed as a Philips lamp and lighting group representative in west and north-west London.

Mr. D. K. Fraser, joint managing director of G. A. Harvey and Co. (London), Ltd., has been appointed managing director. **Mr. H. E. Cooper** has relinquished his office of joint managing director but remains a director of the company.

Whatlings, Ltd., have announced that **Mr. Douglas A. P. Hill, F.C.A.**, has resigned as chairman of the board as a result of increasing business commitments. He will continue to serve as a director. **Mr. James Robertson, B.Sc., M.I.C.E.**, while retaining his position as managing director, has been elected chairman of the Board.

Mr. C. H. Grist, managing director of Blaw Knox, Ltd., has succeeded **Mr. A. Yorke Saville**, managing director of Construction Machinery, Ltd., as president of The Federation of Manufacturers of Construction Equipment.



C. H. GRIST

British Insulated Callender's Cables, Ltd., have announced the following changes in the overseas organisation of the company: **Mr. C. Murray**, with the title of general overseas manager, is responsible for the operations of the overseas organisation and the co-ordination of its activities overseas; **Mr. C. A. Chidwick** has become overseas manager, responsible for all BICC activities in Africa, the Middle East and the Near East, and he will deputise for Mr. Murray in his absence; **Mr. G. C. Knight** becomes overseas manager with responsibility for the firm's activities in Australia and New Zealand, Canada and the United States, Central America, West Indies and South America, and Spain, Portugal and Gibraltar; **Mr. A. F. Coventry** becomes overseas manager responsible for activities in Europe (excluding Spain, Portugal and Gibraltar), India, Pakistan and Ceylon; **Mr. J. L. Woollett** is appointed regional manager for Canada and U.S.A., responsible to Mr. Knight; and **Mr. W. F. North**, while continuing as secretary of the Telegraph Construction and Maintenance Co., Ltd., and Selborne Plantation Co., Ltd., and as general manager of Telcon Enterprises, Ltd., also becomes personal assistant to Mr. Murray.

Mr. P. M. Kennett, A.I.R.T.E., formerly a field service engineer of Leyland Motors, Ltd., has now been appointed sales engineer (western hemisphere) of the company. Mr. Kennett joined the company in 1948 as a trade apprentice. After serving with R.E.M.E. he returned to Leyland in 1955 and was appointed a field service engineer two years later. Mr. Kennett has left on a 28,000-mile tour through the Caribbean and South America. He is visiting operators of Leyland group trucks and buses in Jamaica, Trinidad, Barbados, Cuba, Venezuela and Uruguay.



P. M. KENNELL

The Council of the Institute of Quarrying has appointed **Mr. Brian G. Fish, M.Sc., M.I.Min.E.**, technical officer of the Institute with effect from February 1. For the past ten years, Mr. Fish has been on the scientific staff of the National Coal Board.

Professor Lewis Mumford, who has been awarded the Royal Gold Medal for Architecture for 1961 (*The Contract Journal*, January 19, 1961),



PROF. MUMFORD

has an international reputation as an authority on cities, and through his many books he has exerted a profound influence on present-day trends in town planning, housing and the social arts. He is an honorary member of the International Housing and Town Planning Federation, American Institute of Architects, the Town Planning Institute of Great Britain, the American Institute of Planners, and the Town Planning Institute of Canada. He is also an honorary associate of the R.I.B.A. In 1957 he was awarded the Town Planning Institute Royal Gold Medal.

Mr. Frank J. P. Lilley, chairman of F. J. C. Lilley (Contractors), Ltd., has joined the Glasgow board of North British and Mercantile Insurance Co., Ltd.

The India Tyre and Rubber Co., Ltd., have announced the appointment of **Mr. B. Gledhill** as technical manager. During the past four years he has been technical manager of a tyre factory in Canada.

Scaffolding (Great Britain), Ltd., have announced the appointment of **Mr. Alan Walker** as London area manager of the SGB building equipment division. Mr. Walker was formerly manager of the scaffolding department of the building equipment division. In his new appointment he will be responsible for the hire and sale of SGB building equipment in London and adjacent areas.



A. WALKER

The new deputy chairman of Simon Engineering, Ltd., is **Mr. D. T. Barratt**. He has also been appointed a director of the subsidiary, Henry Simon (Holdings), Ltd., and will become chairman on March 1. From that date he will relinquish his executive responsibilities and the joint managing directorship of Simon-Carves, Ltd., but will remain a director. **Mr. I. Hey** will relinquish the chairmanship of Henry Simon (Holdings) on March 1 for health reasons, but will remain a director of the company. **Mr. J. P. V. Woolam** becomes deputy chairman of Simon-Carves and **Mr. L. Brook** has been appointed a director of the company and a member of the management board. **Mr. A. H. Bennett** joins the board of Henry Simon (Engineering Works), Ltd., and **Mr. J. G. MacLean** becomes a director of Turbine Gears, Ltd.

Sir Roger Makins, G.C.B., G.C.M.G., chairman of the United Kingdom Atomic Energy Authority, represented H.M. Government at the recent opening of the

(Concluded on page 468)

SPEED-UP AND EXPANSION OF HOSPITAL BUILDING

Planning for 10-year Period

MR. ENOCH POWELL, Minister of Health, announced last week that for the first time hospital boards are being asked to make long-term plans for hospital building. He has asked all hospital boards in England and Wales to submit proposals for building work to be started in the next ten years.

Until now the hospital boards have never been able to go ahead with firm planning for more than a couple of years at a time. Under the new arrangements hospital authorities will be able to decide on the order of priority for future work and to organise the technical resources which they must have in order to undertake and sustain the increased building programme. Boards which have already prepared tentative building programmes for some way ahead, will be able to complete them with greater confidence.

The Minister also announced that the maximum cost of individual projects which hospital boards can undertake without prior Ministerial approval is to be doubled from February 1, from £30,000 to £60,000.

The Ministry will issue shortly a series of Building Notes giving guidance on hospital planning and on the design of hospital departments. In connection with this a system of "cost limits" will be introduced. This will obviate detailed examination by the Ministry of plans which conform in design and cost to the indications given in the Building Notes.

Starting Dates

In future, whenever the preparation of a scheme is approved, a date for the actual start of building will be indicated at the same time, so that the hospital

authority can carry straight through to completion in the knowledge that the scheme will not be held up once the preparation of plans has begun.

This procedure will be applied to the further selection of major schemes which Mr. Powell will shortly announce in Parliament. Together with those previously announced, these should cover all major work to be started up to, and including, 1964-65, and it is intended to give provisional starting dates for all of them as soon as practicable.

Mr. Powell has sent to all the hospital authorities in England and Wales a memorandum giving details of the new methods he is introducing for planning and executing the hospital building programme.

"My main object," he tells them, "is to tackle the immense task of hospital capital development and re-provision as quickly and as efficiently as possible. The process will break down unless long-term plans are realistic and momentum is steadily maintained. I am confident that hospital boards will co-operate with me in achieving this."

Finance

The provisional figure for hospital capital expenditure in 1962-63, subject to the economic situation, is £36 million, as compared with £31 million in the coming financial year. Mr. Powell has also given to each of the regional hospital boards figures within which they should prepare their plans for the subsequent three years. While no commitments can be entered into by the Government at this stage, and while the phasing cannot yet be determined, the total expenditure for England and Wales on which these planning limits are based would rise by 1965-66 to an

amount in the region of £50 million. The figures given to boards include provision for the modernisation of mental hospitals and for plant replacement, but the Minister has not, as hitherto, specified the actual amounts to be used for these purposes, as he wishes to give the boards greater freedom to exercise discretion.

Date for Submitting Schemes

Dealing with the forward look over a 10 year period, Mr. Powell says that the programme for the first five years will need to be as firm as possible. For subsequent years it will need to be more adaptable and less detailed, since developments in medicine, changes in population and many other factors will involve modification as time goes on.

He has asked boards to submit to him by May 31, their proposals of work to be started up to 1970-71. These programmes will be revised annually so that at any given time there will be a 10 year view, of which the first five years will be as firm as possible.

In preparing their proposals for the period 1966-67 to 1970-71 the boards are asked to make an estimate of what is needed and practicable. It is the Minister's intention that boards should have freedom to express and justify what they consider to be their reasonable needs. At this stage they will not be tied to specific financial limits in making their plans, but they are asked to take into account their probable resources of staff for planning the buildings they propose and for operating them when they are ready.

Hospital authorities are being asked to estimate as accurately as possible how the execution of the plans which they submit will affect current costs. In doing so, they will take account not only of the cost of running the new establishments but also of the savings which ought to be achieved by increased efficiency and by the elimination of existing premises which will be rebuilt or rendered redundant. These estimates of the effect on running costs will have their influence on future estimating and financial control in the hospital service.

NEW HOSPITALS BEING PLANNED

The following are the new hospitals among over 180 major schemes so far selected by the Minister of Health in addition to the works carried out within the normal allocations to Hospital Boards; the actual starting date for building will depend on the time needed to complete planning and the capital resources then available.

Cardiff.—Result of competition for design of this new teaching centre was announced in May. The centre will include hospital of 650 beds, medical and dental schools. Sketch plans have been received.

Charing Cross.—New hospital at Fulham.

Royal Free.—New hospital of some 800 beds at Hampstead.

St. Mary's Maternity, Manchester.—First phase of some 50 beds.

St. Thomas', London.—The first stage of rebuilding will include ward block of approximately 215 beds, operating theatres, boiler house and a residential staff block. The cost will be in the region of £2½m.

United Birmingham Hospitals.—New maternity hospital to replace present one due to be evacuated when new inner ring road is started. Site will be in the vicinity of Queen Elizabeth's Hospital.

United Liverpool Hospitals.—Planning of first phase of new teaching hospital, which will ultimately provide modern and more closely knit group than present teaching hospital comprises.

Boston.—Competition in progress for design of new hospital, which will comprise some 474 beds. Last date for submission of designs (first stage of competition), September 30.

Coventry.—A new hospital, including maternity unit, which will be started first.

Leeds R.H.B.—New acute hospital for Hull.

Liverpool.—New hospital at Fazakerley.

Psychiatric Hospital, Northamptonshire.—New psychiatric hospital is needed for the Northern part of the Oxford Region. The site and scope of the scheme have not yet been settled.

North Tees-side.—New hospital at Stockton-on-Tees. First phase to cost approximately £1m.

North West Met. R.H.B.—New building to rehouse Tavistock clinic. The N.W. Met. R.H.B. has tentatively proposed a site at Hampstead, but this is not yet settled.

Queen Mary's Sidcup.—New hospital to replace the existing huttet hospital.

Slough.—A new hospital of 300 beds. Estimated cost £1,905,000.

South Manchester.—First phase of new hospital of about 400 beds, including maternity unit of 80 beds, to be sited at Baguley. Estimated cost is about £2½m. for whole hospital.

Turbo.—Detailed planning of the first phase to comprise 180 beds is nearing completion.

The content of a second phase is under discussion.

Wembley.—First phase of new hospital at Northwick Park.

NEW DENTAL HOSPITALS

Birmingham.—A new hospital to be built adjoining the Birmingham Hospital, which will be one of the Birmingham Teaching Hospitals. Clinical provision for 260 students, cost £1m. **Cards.**—A new dental teaching hospital to be built on part of the new medical centre is being planned.

Liverpool.—A new dental teaching hospital is being planned.

Charles Clifford, Sheffield.—Completed in 1953, at a cost of £200,000. Has an intake of 40 students per year and is one of the Sheffield Teaching Hospitals.

King's College.—To be built on a site adjoining the Teaching Hospital.

London Hospital.—To be built on a site adjoining the Teaching Hospital.

University College Hospital, London.—To be built adjoining this Teaching Hospital at an estimated cost of approximately £400,000. It will have an intake of 50 students a year.

£90,000 WEST END HOTEL CONVERSION

In only 14 weeks 77 bedrooms are to be converted into bedroom-bathroom suites at London's Piccadilly Hotel. This is the third and final phase of a £150,000 modernisation scheme for the hotel which will provide a bathroom for every one of its 250 rooms.

To ensure that their latest £90,000 contract is completed on time, Holland & Hannen and Cubitts (Great Britain), Ltd., in co-operation with the architects, T. Mortimer Burrows and Partners have preplanned the operation to the smallest detail, including delivery of materials, prefabrication, programming of labour and the order of the rooms to be converted.

A spokesman for Cubitts says: "To cause no inconvenience to hotel guests, we have built a special hoist and scaffolding in Vine Street which will take men and materials into the hotel via the windows of vacant rooms. We shall not need to use the front of the hotel in Piccadilly at all. As each suite is completed it will be handed over, entirely redecorated and made available for immediate occupation."

Engineering services include mechanical ventilation to 36 bathrooms by centrifugal fans, plumbing, heating, hot and cold water services and towel rails for all 77 rooms. As a quick turn-round is essential 60 per cent. of the installation has already been prefabricated by Engineering Service Installations, Ltd. This includes main stacks for each bathroom, soil, waste and ventilation pipes all in copper tubing. The method of fabrication enables one installation to cover the supply to two bathrooms.

Talking of Safety

by
"DRAGEE"

IF I were asked to compile a personal list of unforgettable characters, I would begin with Angelo, our ancient night watchman.

To most people, the title conjures up visions of a little hut beside a bright brazier, and a genial, ruddy cheeked philosopher being nice to children and stray cats. That was not Angelo. He came to us, I am told, in the early winter of 1936, and he was said to be suffering from a weak chest. He was then very small, white haired, exceedingly thin, and he suffered from a persistent, staccato cough. He still coughs a good deal—but only, I suspect, because he smokes prodigiously—and whatever his old complaint may be, it doesn't appear to have made any inroads upon his stamina.

Angelo came from his native Italy shortly after the first World War, and he has deeply regretted it ever since—or so he says.

"It is not good for my health," he remarked one evening, a few months ago. He coughed out of one corner of his mouth—a cigarette was fixed in the other corner—and a little cloud of ash fell around him. It was a few minutes after finishing time on the job, and Angelo was in No. 3 mess hut—the smallest—expertly stoking up the fire for the night. (To his credit, he has never been caught napping on the job.) "This is not a good life," he went on. "One day I learn a trade. It is getting too dangerous these days."

I knew he was referring to some recent hooligan raids on some other sites in the district, and I couldn't help sympathising. "But now I have a good protection" he added. "So I do not give up yet." He coughed until his eyes watered.

Knowing something of Angelo's fierce loyalty to his employers, I had a sudden notion that he must have armed himself to the teeth. I looked around, apprehensively, for signs of shotguns, stilettos or even a hand grenade or two—but there was nothing to be seen.

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—EDITOR.

From outside there came a sudden howl. I stiffened, and clutched the table. Angelo coughed approvingly.

"That is Pietro—my dog," he said.

"Ah, your bodyguard," I exclaimed, in considerable relief.

"It is Pietro," he repeated. "When they come to steal the insurance cards, like they did at the power station, my Pietro will be waiting for them." He cackled. "He will tear them into little pieces."

"Good heavens!" I said in alarm. "Is he as dangerous as all that?"

Angelo laughed and coughed alternately, then he went out for a few moments and presently returned with Pietro. Or, rather, Pietro returned with him. He was a massive hound, of the crazy mixed-up type, and he obviously regarded Angelo with a good deal of affection. He wasn't at all sure about me. We eyed each other uncertainly until Angelo said:

"You go ahead and pat him. Then he will love you. I am here," he added encouragingly.

I carefully patted the enormous head, at which the entire dog rose up on its hind legs and gave me a friendly wipe across the cheek with a very wet tongue. He then got down and sat in a corner of the hut, without showing any further signs of interest.

"I must taste horrible," I said. "He doesn't want to tear me into little pieces."

Angelo looked affectionately at Pietro.

"He is the good friend," he said, sincerely, and without sentiment.

A fortnight later I paid another visit to the job, this time early in the morning. I had been up rather late the night before, having met a couple of old friends who had arrived unexpectedly at my hotel, so that when I got to the site I was feeling a trifle weary. But I soon roused myself when John Dawson, the agent, told me the news. The police had called at his lodgings shortly after midnight to report an affray at the site, in which two hefty young thugs had been left substantially damaged, and at least two others had fled, leaving a trail of blood behind them.

"They were soon picked up," said John, "and all four are now in hospital—under close police surveillance."

I suspected at once what had happened. The mighty Pietro had surprised the intruders—in the most literal sense—and

only his innate good nature had prevented him from eating them.

"Was the dog injured at all?" I asked.

"Good heavens, no—he kept well out of the way," said John.

I stared in bewilderment. "Then what happened?"

"Oh, sorry—I've only given you half the story. Well you know how trusting that stupid animal is—or don't you? The hooligans had coaxed it into a little shed where some of the fuel is stored, then tried to set fire to the place. At that point Angelo arrived on the scene, carrying a three-foot length of iron bar—and that's what did the damage, old boy!"

I really meant to write about the employment of elderly persons, but I couldn't resist finishing this little story about one courageous old man. He, too, is the good friend.

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Canada India Reactor at Trombay, India. Sir Roger also took part in a symposium held at Trombay on January 17 and 18, at which he and Sir John Cockcroft, a part-time Member of the U.K.A.E.A., presented papers on aspects of the U.K. nuclear power programme.

The Stanley European marketing organisation has appointed Mr. John N. C. Moss as marketing manager for southern Europe, embracing initially France, Italy and Switzerland. The organisation has been set up jointly by the Stanley Companies in Great Britain, the U.S.A. and Germany to provide a central marketing organisation in Europe.

J. N. C. Moss

The chairman of G.K.N. Reinforcements, Ltd., Mr. C. R. Wheeler, has resigned from the board on relinquishing his executive responsibilities with the G.K.N. group. He is succeeded by Mr. N. R. R. Brooke, managing director of Guest Keen and Nettlefolds (South Wales), Ltd., and a director of G.K.N. Reinforcements.

MUNICIPAL

Mr. Andrew Rankine, city architect at Hull for many years, will retire in February.

The new borough architect at Keighley to succeed Mr. E. G. Felgate when he retires at the end of March will be Mr. Thomas D. William, at present deputy city architect at Chester. Mr. Felgate has held his position for 36 years.

Mr. Alec Williams, chief assistant architect at Solihull for the past seven years, has been appointed deputy borough architect to Darlington B.C.

The city engineer and surveyor at Lichfield, Mr. David Oglesby, has resigned to join the architectural firm of Shingler and Risdon.

Mr. Felix J. Lever, deputy housing director at Coventry since 1955, has been appointed to succeed Mr. C. H. Dodson as housing director.

Mr. H. Rossiter, surveyor to Norton-Radstock (Som.) U.D.C., has been elected chairman of the Association of Somerset Surveyors for 1961.

Mr. H. Parkinson, surveyor to Holmfirth (Yorks.) U.D.C., has retired after 26 years' service with the Council.



THERMAL INSULATION—SHOULD LININGS BE CONTROLLED?

From a Correspondent

THE County Councils Association is urging the Ministry of Housing and Local Government to proceed as quickly as possible with its examination of model byelaws "with a view to providing for control of thermal insulation in new dwellings to avoid fire risk."

This follows a meeting between representatives of the Association and the Association of Municipal Corporations with the Ministry of Housing and Local Government chief officials, the Chief Fire Officers' Association, the Building Research Station and the Fire Research Station.

At this meeting there was considerable criticism of the model byelaw relating to thermal insulation in domestic buildings which had been sent out by the Ministry to local authorities in 1959.

It was contended that because of the omission from the byelaw of any control of lining materials the operation of the byelaw could lead to danger from fire. In the view of the County Councils Association, the absence of control over linings was at variance with the feelings of the Code of Practices Committee on high buildings, which considered it essential that upper floors and escape routes in blocks of flats should be lined with non-flammable materials.

The association raised three other main points:

(a) The byelaw ran counter to the wishes of Parliament, which had accepted the need for control of lining in industrial buildings when the Thermal Insulation (Industrial) Buildings Act was before it. There were more deaths from fires in dwelling houses than in factories.

(b) The byelaw inferred that control of lining materials was not necessary, yet some fire risk had been acknowledged by the exclusion of common staircases from any thermal insulation requirements.

(c) The byelaw should be amended to control the type of lining which could be used or failing that some indication, possibly by way of a circular, should be sent to all local authorities warning them of the risk of the use of certain materials.

Ministry's Views

The Ministry, on the other hand, argued that the byelaw was designed simply to raise the standard of thermal insulation in domestic buildings. So far as walls were concerned, the byelaw was no different from the one which had been in operation since 1952.

The byelaw did not require more by way of thermal insulation than was generally being put into new dwellings anyway.

The department had taken advice on the question of fire risk. Linings were not controlled at all in the present byelaws and the department was advised that the operation of the thermal insulation byelaw would make little, if any, difference to the whole problem of the use of combustible linings.

The Ministry contended that so far as blocks of flats were concerned, the part most likely to be affected by the requirements of the byelaw was the ceiling of the top storey. The risk concerned was a very small one compared with the risk that would result if all public corridors were lined with flammable materials.

Although the department had no evidence that the absence of control of linings was leading to dangerous situations, the question would be fully examined during the revision of the requirements in the model byelaws. Preliminary work directed towards this revision had already been started.

In the Ministry's view, the overall risk from the use of flammable linings in common staircases would be much

greater than that from similar linings on the ceiling of the top floor of a building. For this reason common staircases had been excluded from the operation of the byelaw.

Industrial buildings, the Ministry stated, were so different in design from blocks of flats the direct comparison was misleading. In a single storey industrial building the roof lining was the major part of the interior surface of the building and might cover a single compartment of very large size. In a block of flats the lining of any public part of the building that was affected by the thermal insulation byelaw was a very small part.

At this meeting representatives of the Fire Research Station contended that in the majority of cases internal linings of external walls were already prohibited since the walls had to be non-combustible throughout.

Question too Complex

They argued that if any fire risk were presented by lining materials it should not be dealt with in the context of the thermal insulation byelaw. The question was much too complex. If control were found to be necessary it must be provided in such a way as not to infer that materials not banned for thermal insulation purposes could safely be used for other purposes.

In reply to questions from the County Councils Association, the Ministry representatives said that it was not yet possible to say what would eventually be decided about control of linings or when a decision would be reached. A working party had already started preliminary work directed towards reviewing the requirements of the model byelaws.

If building regulations replaced byelaws, as was proposed in the Public Health Bill now before Parliament, the Minister would be required to appoint an advisory committee and to consult it and all interested bodies on the content of building regulations. The Ministry was not convinced that the small part which the thermal insulation byelaw played in the question of control of linings generally justified any action being taken outside the general review and the drafting of building regulations.

SLADE GREEN BRIDGE GIVES DISTRICT NEW ACCESS

A ROAD BRIDGE recently opened over the railway at Slade Green, Kent, for Crayford Urban Council, now gives direct vehicular entry to the district. Hitherto, the only access to Slade Green has been via two level crossings, and these have caused increasing delays to road traffic.

The contract comprised the construction of a 64ft. clear, single square span road bridge over the railway, together with approach roads on embankments to link with existing roads. The total length of the bridge and approaches is 1,050ft., the carriageway being 22ft. wide with a footpath 8ft. wide on each side. Bridge abutments and wing walls are of mass concrete with brick facing and mass concrete footings.

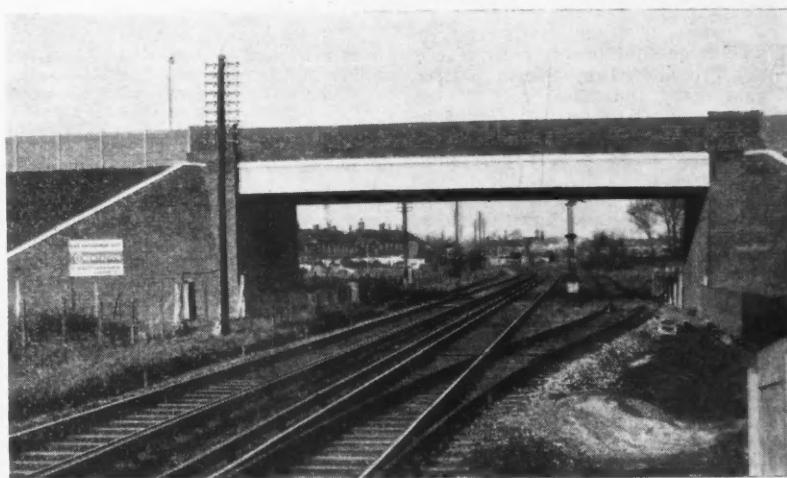
The bridge deck consists of 17 precast pretensioned prestressed concrete beams, each 71ft. 6in. long and weighing about 15 tons, placed side by side, and an in-situ reinforced concrete slab cast at the level of the top of the beams, waterproofed with asphalt reinforced with fibre-glass tissue. The deck is prestressed transversely by the P.S.C. Mono Wire system with cables through the webs of the beams and in-situ concrete diaphragms. Pipe ducts with precast reinforced concrete floor slab are formed between the beams below the

footpaths and the bridge has brick parapets and cast stone copings.

Approach embankments were filled with imported hoggin, and carriageway construction generally consists of hardcore

base with surfacing of hot rolled asphalt. Ancillary works included drainage, footpath paving, fencing, street lighting and seeding of the embankments.

Harry Brompton and Partners, Hobart Place, London, S.W.1, were the consulting engineers for the scheme, the cost of which is estimated at £81,700. The contractors were The Cementation Co., Ltd., 20 Albert Embankment, London, S.E.11.



The new road bridge

FOR THE DIARY

Jan. 27

Annual general meeting of the Southern Counties Federation of Building Trades Employers, Connaught Rooms, London. 10.30 a.m.

Annual general meeting of the London Master Plasterers Association, Charing Cross Hotel, London. 11 a.m.

Jan. 28

Annual dinner and dance of the London branch of the Contractors' Mechanical Plant Engineers, Criterion Restaurant, London.

Annual dinner and dance of the North West branch of the Contractors' Mechanical Plant Engineers, Reece's Banqueting Suite, Clayton Square, Liverpool.

Jan. 31

Annual general meeting of the Northern Counties Regional Federation of Building Trades Employers, Sunderland.

Annual dinner of the East Midlands Association of the Institution of Civil Engineers.

Conference and exhibition on office lighting arranged by the British Lighting Council, at Brettenham House, 16-18 Lancaster Place, London, W.C.2. Jan. 31-Feb. 2.

Feb. 1

Meeting of the Manchester and District branch of the Contractors' Mechanical Plant Engineers, Nags Head Hotel, Jacksons Row, Manchester, 2. 7.30 p.m. Film on excavators and excavations and discussion.

Meeting of the Building Surveyors' Institute—Region No. 2 (Midlands) at the Birmingham Exchange and Engineering Centre, Stephenson Place, Birmingham, at 7 p.m. Architects and surveyors forum. Questions and discussion on "Current Problems in Building."

Feb. 2

Annual dinner of the North Western Association of the Institution of Civil Engineers.

Feb. 3

Annual dinner of the Building and Civil Engineering Contractors' Section of the Birmingham and District Industrial Safety Group, Midland Hotel, Birmingham.

Meeting of the Institution of Highway Engineers at 11 Upper Belgrave Street, London, S.W.1, 5.30 p.m. "Lessons Learned on the Design, Construction and Maintenance of Motorways—(III) From the Contractor's Angle", by W. Kirby Laing.

Feb. 6

Meeting of the Society of Engineers at Geological Society, Burlington House, London. Presidential Address by Mr. W. E. Humphrey, F.S.E.

Feb. 7

Annual dinner of the National Federation of Building Trades Employers, Grosvenor House, London.

"Heating the Home" Exhibition, sponsored by the Eastern, North Thames, South Eastern and Southern Gas Boards, at Royal Horticultural Hall, London. Feb. 7-18.

Feb. 8

Annual general meeting of the National Federation of Building Trades Employers, R.I.B.A., London.

Meeting of the Royal Society of Arts, John Adam Street, London, W.C.2, at 2.30 p.m. Paper "The Timber Industry" by Rodney Perry, chairman, Timber Development Association.

Meeting of the Glasgow branch of the Contractors' Mechanical Plant Engineers, More's Hotel, India Street, Glasgow. Lecture "Grabs and Dredgers" by Mr. G. B. Oliver of Priestman Brothers, Ltd.

Feb. 9

Meeting of the Institution of Structural Engineers, 11 Upper Belgrave Street, London, S.W.1, 6 p.m. "Aluminium Strut Design" by J. B. Dwight.

Feb. 14

Annual dinner of the Institute of Builders, Guildhall, City of London.

Feb. 15

Meeting of the Reinforced Concrete Association at 11 Upper Belgrave Street, London, S.W.1, 6 p.m. "Hyperbolic Paraboloids", by J. D. Bennett, with contributions from H. Gorst, Mrs. C. Hume and H. S. Scorer.

Feb. 17

Annual dinner of the Institution of Plant Engineers, Connaught Rooms, London.

Feb. 20

Meeting of the Faculty of Building (County of London Branch) at the Building Centre, W.C.1, 7 p.m. A film show on building and civil engineering overseas.

Feb. 21

Top-level management conference organised by the Northern Counties Regional Federation of Building Trades Employers in conjunction with B.A.S., Durham, Feb. 21-22.

Feb. 22

Federation of Master Builders London Region lunch for housebuilder members, Grosvenor House, London. 1 p.m.

Feb. 23

Meeting of the Institute of Sewage Purification (Metropolitan and Southern Branch) at Friends House (Rooms 7 and 8), Euston Road, London, N.W.1, 6.30 p.m. "Sludge Treatment at Luton", by S. C. Evans.

Feb. 25

Annual dinner of the Faculty of Building at the Hyde Park Hotel, London, S.W.1.

Feb. 27

Meeting of the Hants and Sussex branch of the Contractors' Mechanical Plant Engineers, Black Dog Inn, Emsworth. 7.30 p.m. Talk on "Insurance and Safety Regulations".

Annual general meeting and luncheon of the Midland Federation of Building Trades Employers, Midland Hotel, Birmingham.

March 1

Meeting of the Manchester and District branch of the Contractors' Mechanical Plant Engineers, Nags Head Hotel, Jacksons Row, Manchester, 2. 7.30 p.m. Film on underwater construction, demolition and recovery.

March 3

Meeting of the Institution of Highway Engineers at 11 Upper Belgrave Street, London, S.W.1, 5.30 p.m. "Lessons Learned on the Design, Construction and Maintenance of Motorways—(IV) From the Ministry of Transport Angle", by a representative of the Ministry.

March 6

Meeting of the Society of Engineers at the Geographical Society, Burlington House, London, W. 5.30 p.m. "Some Aspects of Prestressed Concrete", by H. Kaylor.

March 9

Meeting of the Royal Institution of Chartered Surveyors, Grosvenor House, London.

March 9

Meeting of the Institution of Structural Engineers, 11 Upper Belgrave Street, London, S.W.1, 6 p.m. "Model Methods, with Particular Reference to Three Recent Applications in the Field of Steel, Composite and Concrete Construction", by Prof. S. R. Sparkes and Dr. J. C. Chapman.

Meeting of the Institute of Sewage Purification (Metropolitan and Southern Branch) at St. Ermin's Hotel, Caxton Street, London, S.W.1, 3 p.m. "The Affairs of the Old Association and Institute", by the President, followed by the annual dinner at 6.30 p.m.

March 15

Meeting of the Reinforced Concrete Association at 11 Upper Belgrave Street, London, S.W.1, 5.30 p.m. Symposium on "Large Diameter Bored Piles". Authors include: M. J. Tomlinson, J. A. Derrington, W. G. K. Fleming, M. W. Leonard and D. J. Palmer.

Annual general meeting of the South Western Branch of the Institution of Highway Engineers at Wells, Somerset.

March 20

Meeting of the Faculty of Building (County of London Branch) at the Building Centre, W.C.1, 7 p.m. A lecture by a Fellow of the Royal Geographical Society on Ordnance Surveying.

TEES-SIDE MARSHALLING YARDS

Main Contracts Let

FIVE large contracts recently placed by British Railways North Eastern Region cover the major part of the technical equipment to be installed in the new mechanised marshalling yards now taking shape at Newport near Middlesbrough.

The two largest contracts, awarded to Westinghouse Brake and Signal Co., Ltd., are for signalling and control equipment inside the yard and on the main lines in the area. Under the first contract 30 miles of running lines in the area, now operated by four old-type signal boxes, are to be remotely controlled from a switch console housed in one of the yards' two control towers. The console operator will be able to set 315 separate routes and control 106 signals and 131 power-driven points.

The second contract is for the complex signalling apparatus required for controlling shunting operations within the yards from the control towers. The switching of points for the wagons rolling

from the raised "humps" into the various sidings will be governed by a push-button control panel allowing fully automatic operation. Wheel-grip retarders for slowing down the rolling wagons will be automatically controlled to vary pressure according to weight, running speed, curvature of sidings, and distance each wagon is required to roll. Radar will be used to measure wagon speeds.

Two further contracts have been awarded to British Insulated Callender's Cables, Ltd. One is for yard floodlighting, consisting of 11 150ft. lighting towers together with the equipping and commissioning of three major substations. The other is for signalling cables; altogether 43 miles of multi-core cables and 16 miles of double-core power cables are to be provided.

The remaining contract, awarded to the Tarmac Group, is for construction of the two control towers.

Tenders have also been invited for cab signalling equipment for the yard loco-

motives and an associated inductive radio system—a novel transmission technique that uses as its medium the inductive field of an encircling loop of wire.

Work on the 200-acre site began in 1959. As much of the area is occupied by existing marshalling yards the engineering work is being undertaken in stages. Extensive earthworks have already been completed and some 40 of the 82 sorting sidings have been laid. Engineering work already carried out also includes the diversion of the main line, the channelling and bridging of a tributary of the River Tees, and transport of a quarter of a million tons of filling material.

Due for completion in 1963, the new yards will be capable of sorting 7,500 wagons a day.

PROGRESS

The Association of Municipal Corporations have been informed that it is hoped that agreement on the revised R.I.B.A. Standard Form of Contract will be very shortly forthcoming and that the new forms will be available during 1961.

PAINTING OF GRID TOWERS

Experiments by Power Board

THE Central Electricity Generating Board have been experimenting to find out whether the high voltage transmission towers of the Grid and Supergrid might be specially painted to help them blend into the countryside.

The Board enlisted the services of Mr. James Gardner, C.B.E., R.D.I., the industrial designer who was chief development officer of the Army School of Camouflage during the last war. Mr. Michael Shephard, the Board's architect, was responsible for co-ordinating the work.

Four 85ft. high towers on the 132,000-V line between Oxford and Watford in the neighbourhood of Rickmansworth and Chenes were selected for treatment. They were chosen for the differing characters of their backgrounds against woods and hillsides, scrub and arable land. Painting was completed last March so that the results could be studied in a winter setting and later on when the trees and vegetation were in full leaf.

A different experiment was tried on each tower. One was an all-over painting in dark bronze green. Another was painted similarly for the first 40ft. of its height and the remainder of the tower treated in irregular patches of pink and blue. A third was painted in all-over irregular patterns of black, bronze green and pink. A matt paint was used throughout to avoid light reflection.

Both Sir Christopher Hinton, chairman of the Generating Board, and Sir William Holford, a member of the Board, went down personally to study the results.

Major Difficulty

As had been foreseen, the major difficulty, particularly in the case of the towers which had been painted with a disruptive pattern, was that changing conditions of light and weather affected any attempt at all-out camouflage. A tower which was lost to view on an overcast day or beneath broken clouds showed up most markedly under a strong sun. The changing seasonal colours of the background had an equally important effect. To achieve even partial

success, each individual tower would have to be treated as a special subject, and even then the constantly changing viewpoints from which the towers were normally seen presented a further problem.

The tower painted black and green at the bottom with light blue and pink above to merge with the sky was almost invisible from half a mile away in one direction but was conspicuous from another. A similar treatment for a second tower, which stood out if viewed against the light green background of the trees nearby, proved a perfect match with the dark woods when the viewpoint was changed by a quarter of a mile.

Broad Conclusions

The broad conclusions drawn from these experiments were that the benefits to be obtained from the only practical forms of camouflage were, in fact, marginal due to the varying conditions of light, viewpoint and seasonal background. In many cases a weathered and rusty tower was better than a painted one.

For the majority of conditions weathered galvanised steel was still thought to be best, and when repainting becomes necessary an aluminium paint should be used. Against special sky backgrounds in flat country, or where seascapes were involved, a pale matt blue might be used. For heavy woodland and open moorland the dark bronze green was preferred. In well timbered country the natural break-up of rust against weathered galvanising seemed as acceptable as any form of painting.

Best Recommendation

The best general recommendation would seem to be to leave towers in their natural steel-grey colour and, when repainting becomes necessary, to use the British Standard dark bronze green which was recommended in the annual report of the Council for the Preservation of Rural England for 1958.

Nevertheless, is it likely that the Generating Board will undertake further experiments on new transmission lines, particularly in areas of high amenity value.

INSTITUTE OF SEWAGE PURIFICATION

Annual Conference at Brighton

THE Institute of Sewage Purification will celebrate the 60th anniversary of its foundation at the annual conference to be held at Brighton from June 19-23.

The conference programme includes the following papers: "Reflections on 25 Years in West Middlesex" by Mr. C. B. Townend, C.B.E., B.Sc., M.I.C.E., chief engineer, Middlesex C.C. Main Drainage Department; "Aeration Units for Sewage Treatment" by Mr. A. L. Downing, M.A., B.Sc., of the Water Pollution Research Laboratory; "Chemical Engineering in Water Pollution" by Prof. F. H. Garner, director, Chemical Engineering Department, The University of Birmingham; and "Costs of Construction of Sewage Treatment Works and their Influence on Design" by Mr. John T. Calvert, M.A., M.I.C.E., F.R.I.C.

Mr. Martin Lovett, O.B.E., B.Sc., F.R.I.C., Hon.F.I.P.H.E. will be installed as president in succession to Mr. M. A. Kershaw, F.C.S., F.I.P.H.E.

INTERNATIONAL HYDRAULIC ENGINEERING COURSE

A further international course in Hydraulic Engineering is to be held at Delft, from October 19, 1961, to September 12, 1962, by the Netherlands Universities Foundation for International Co-operation in conjunction with the Delft Technological University. This will be the fifth course of its kind. At the current one 37 engineers from 20 different countries are attending.

The course, which will be given in English, is open to those who have received a thorough preliminary training in engineering. Three programmes have been compiled from the subjects given: Tidal and Coastal Engineering (including harbours); Reclamation (including groundwater recovery); Rivers and Navigation Works. Should a participant prefer a combination of subjects, he may submit a special programme for approval.

Inquiries regarding the course should be made to the Foundation at 27 Molenstraat, The Hague.



A semi-aerial view showing a section of the private 34-acre mixed residential redevelopment scheme being carried out at Dulwich by Wates Built Homes, Ltd. Three of the proposed eight eight-storey blocks, to provide a total of 240 flats, are shown with three-storey houses. The architects are Austin Vernon and Partners, and Derek Lovejoy and Associates are responsible for the overall landscaping of the area.

Trade and Company News**BIG PLANT DEMONSTRATION PLANNED**

A THREE-DAY demonstration of earthmoving equipment is to be given by Mackay Industrial Equipment, Ltd., in association with Hills Plant, Ltd., Morewear Dumpers, Ltd., Road Machines (Drayton), Ltd. and David Roberts and Co. (Engineers), Ltd., from January 31 to February 2, at Hall and Co., Ltd., Clockhouse Lane, Bedfont, off Great Southwest Road (A.40), east of Staines.

The machines demonstrated will include: Fiat 60CI with 10ft. 7½in.-wide hydraulic angledozer; 50CA 1½ cu. yd. two-way tractor shovel; 70CA 1½ cu. yd. two-way tractor shovel; FL4 ¾ cu. yd. tractor shovel; FL4 with 7ft. 1in.-wide 'dozer blade; Allis-Chalmers BTL 14D four-wheel drive 1½ cu. yd. tractor shovel; HD. 6G tractor shovel fitted with 1½ cu. yd. side tipping bucket; Aveling-Barford RM. maintenance grader; Aveling-Austin 99-H motor grader; Wacker BS. 50K Vibroammer; BS. 150K Vibroammer; Barford 150 1½ cu. yd. dumper; Morewear 5-6 cu. yd. goose neck dumpers; Eimco 850 9 cu. yd. dump truck; Mackay DAC. 130 free piston air compressor; and Road Machines LoadAdumP.

Demonstrations will be carried out during each of the three days from 9.30 a.m. to 4.00 p.m. A cinema will be provided and a number of films dealing with earthmoving equipment will be shown continuously. Provision for viewing the demonstrations under cover in the event of wet weather has been arranged.

An open invitation to readers to attend is given by the organisers, Mackay Industrial Equipment, Ltd.

HYDRAULICS COURSE AT BELFAST

Stein Atkinson Vickers Hydraulics, Ltd., are to hold a special three-day course in Belfast on March 1, 2 and 3, for the benefit of local service engineers and designers.

The syllabus will cover Hydraulics Installation and Maintenance and Hydraulics Equipment. It will deal with the servicing and setting-up of hydraulic equipment, trouble shooting, valve construction, pipework and care of fluid, and will describe the range and operation of equipment marketed by the company, general hydraulic principles and ancillary components.

NEW ADJUSTABLE BEAM CLAMP

HEAVY gauge rectangular steel tubing is used in the manufacture of a new beam clamp which, weighing 31lb., is much lighter than the normal clamp of comparable strength.

Known as the Audax clamp, it has several features new to beam clamp design. For instance both arms are adjustable, so that other than central working is allowed for, and spigots are provided for use with one, two or three props, the centre spigot being adjustable for balance when one row only is used.

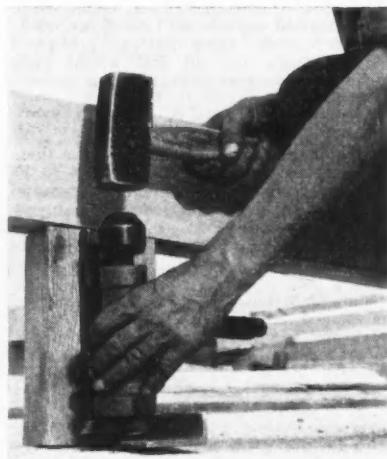
The two arms are 12½in. high and the distance between them is infinitely variable between 5in. and 2ft. 9in. Each arm is welded on to a sleeve which is slid along a rectangular tube in which there are six holes at 2½in. spacing either side of

SAFETY FEATURES IN NEW FIXING TOOL

A NEW fixing tool which may be used with or without cartridges has been announced by Ucan Development, Ltd., 62 Hill Street, Richmond, Surrey.

Nails up to 4in. in length or a range of threaded studs may be driven by the tool to give fixings with a resistance of up to 4,500lb. pull-out force.

Basically the tool, the Hilti DX500, comprises a barrel and a striking head

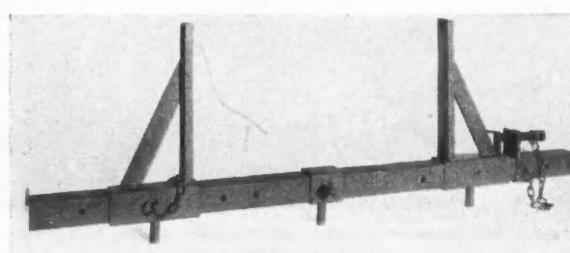


Fixing with DX500 through steel into concrete

which is hit by a hammer. The pin is guided by a captive plunger and positive double guide with metal washers. If a cartridge is used, the gases escape by special ports well away from the operator and the fixing point.

The tool must be pressed against a surface for it to operate. This brings into operation an automatic setting device which by positioning the barrel makes it impossible to fire into free air or through dropping the tool. Pin ricochet does not occur as the pin is held by the captive plunger. There is also a protective shield against any splatter of small pieces of concrete and the tool will not operate if this has been taken off.

The DX500 is designed so that it cannot work if it is more than 6 degrees out of perpendicular to the fixing surface.



The Audax beam clamp

BARBOUR INDEX COMPETITION FOR ARCHITECTS

PRIZES totalling 500 guineas are offered by Barbour Index, Ltd., in a competition for ideas which will help manufacturers of building products to provide improved technical literature. The competition is open to architects and assistants, and is intended to be complementary to the one already sponsored by the R.I.B.A. and the Building Centre amongst manufacturers.

Architects are asked: (1) to describe the factors and principles to be considered in the production of manufacturers' technical literature—taking into account its content, design and use by all members of the building team; (2) to analyse the problems involved in producing, for any one existing building product, an item of manufacturers' literature according to the principles described; and (3) to illustrate this analysis by sample pages of a catalogue or leaflet for the product, demonstrating all the factors involved.

The closing date for entry is Friday, April 28, 1961. Entry forms and conditions are available from Barbour Index, Ltd., 81 Charlotte Street, London, W.1.

JENBACH JW440KF COMPRESSORS NOW AVAILABLE

Engine and compressor are combined to form one integral unit on the new water-cooled and air-cooled Jenbach JW440KF portable compressors which are now available in this country through Chamberlain Plant, Ltd., Crown Works, Southbury Road, Enfield, Middlesex.

The power of the four-stroke engine is transmitted direct to the compressor by means of the main and ancillary connecting rods. Suction/delivery valves in the cylinder head of the compressor operate automatically, concentric location of the delivery valve around the suction valve providing a dual cooling effect.

Compressed air leaving the high pressure cylinder under a pressure of 100lb./sq. in. passes through an annular radiator before reaching the receiver at moderate temperature. A centrifugal blower fixed to the flywheel provides for fanning this cooler. The air aspirated by the engine/compressor unit is purified in oil bath filters, the volume drawn being checked by a regulating valve which is controlled by the pressure prevailing in the air receiver. When the air chamber is fully charged suction is stopped and the engine is caused to idle by its governor.

The unit is incorporated with all accessories in a sprung single-axle frame with steel sheet covering and pneumatic tyres.

TUBE JOINT ELIMINATES WELDING AND BOLTING

A simple method of connecting one tube to another without welding, screwing or bolting has been introduced by Access Equipment, Ltd., Maylands Avenue, Hemel Hempstead, Herts.

The product, known as Clinch tube joints, is designed for use with permanent tubular structures, such as storage racks and bins, trestles, stands, display hoardings and tubular furniture, and is at present available for 1½in. o/d by 16 s.w.g. tubes. It consists of a range of sprung spigot stems, and the joint, which is permanent, operates on the principle of the internal pressure of one tube balancing the external pressure of the other. The single tee-joint, for example, is slid over the first tube; the sprung spigot stems are compressed with a self-locking wrench or spanner and inserted into the right-angle tube, and the joint is then consolidated with a hammer or mallet.

With the new joint, tubular structures can be assembled by unskilled labour with considerable savings in time and cost, claim the manufacturers.

Trade and Company News

AMERICAN BARBER-GREENE ROAD WIDENER

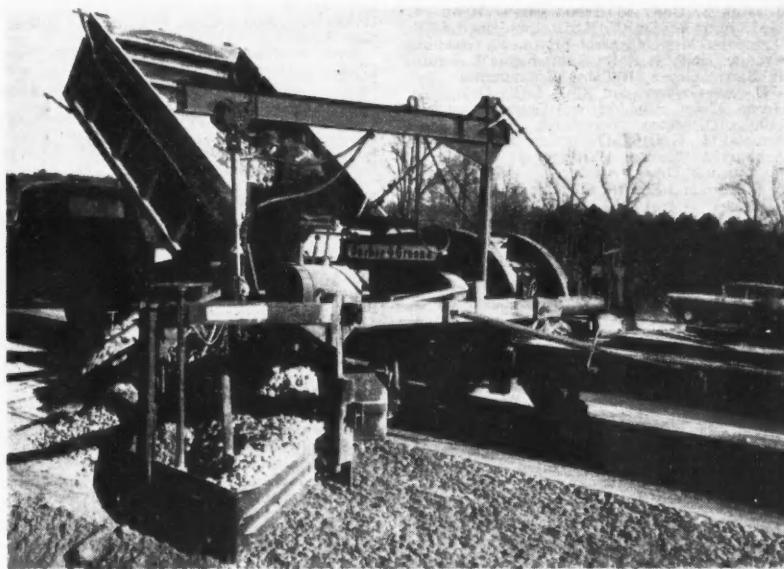
A NUMBER of new principles are incorporated in a road widener, the Model SJ-50, developed by Barber-Greene Company, Aurora, Illinois, and now being used in the United States and Canada.

The machine consists of two basic units, a tractor and a trailer, the first of which includes the $1\frac{1}{2}$ cu. yd. capacity receiving hopper, variable-speed side discharge conveyor, power unit, and operating controls. The trailer unit, which holds the attachments in the operating position, carries

its own jib hoist for easy handling, and serves to transport the tractor and attachments when travelling between jobs.

When coupled together, the tractor unit becomes the power-propelled steering axle. The 25ft.-long wheelbase, combined with the suspension of the attachments from the trailer, gives steering control even with heavy side drag operations.

A feature of the machine is that it can lay all materials normally used for road widening, such as hot and cold asphalt, concrete, stabilisation mixes, aggregates and soil, through the medium of inter-



Model SJ-50 road widener

SYKES ANNOUNCE NEW 10-TON WINCH

PRODUCTION of a new double barreled geared winch, which has a maximum lifting load capacity of 10 tons and employs a torque converter to withstand heavy shock loading, has been announced by Henry Sykes, Ltd., Southwark Street, London, S.E.1.

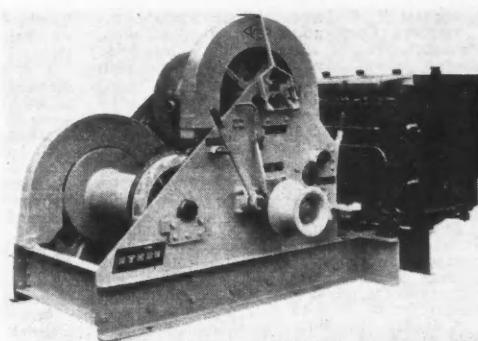
This new winch, the No. 8TC, is an extension to their range of double barreled winches in which a drop hammer may be operated from the upper barrel, the lower front barrel being employed for heavy loads at low speeds.

The use of a torque converter on this winch, it is stated, gives a high degree of flexibility in operation, enabling the load to be manoeuvred at creeping speeds or stalled where required for accurate positioning.

The power unit is a Lister FR6 radiator-cooled diesel engine which develops 48 b.h.p. at 1,500 r.p.m. The torque converter is mounted on an extension of the engine shaft and is a British Twin Disc heavy duty series 1500 single stage unit capable of transmitting up to 650lb./ft. The converter uses SAE 10W oil. In this unit, the pump is integral and a self-governing circuit is employed. The drive is taken from the torque converter output shaft by

means of a composition silent pinion to a double reduction gearing.

The diameter of the piling barrel is 14in., the effective length of this barrel being 18½in. The maximum drop hammer load for piling duties is 4½ tons at a working speed of 120ft. per min. The lifting barrel is 12in. in diameter and has a length of 31½in., the maximum design loading for this barrel being 10 tons at a hoisting speed of 60ft. per minute. The winch has an overall length of 9ft., a width of 7ft. 6in. and a height of 6ft. 4in. The total weight is 5 tons 7cwt.



8TC winch

changeable attachments. In addition, a tamping-levelling principle allows the laying of a level, compacted asphalt surface regardless of base irregularities.

Variable Widths on Move

Variations in the widths of stabilisation mix, aggregates, soil and asphalt being laid can be controlled by the operator while the machine is moving, through an attachment with an all-welded steel frame that adjusts hydraulically for laying widths from 1ft. to 5ft. and from 5ft. to 10ft. This allows a gradual widening of the strip when rounding curves and a gradual narrowing of the strip when the curve is passed. Screw-type slope and thickness controls give simple adjustment.

Two-speed transmission gives 10 forward speeds and two reverse speeds for the machine, and a maximum speed of just over 10½ m.p.h. can be attained for short-distance travel between jobs. Where longer distances are involved the attachments are hoisted up into the trailer bed, the tractor is disconnected and driven up ramps on to the trailer, and the entire machine is then towed at normal speeds. When travelling in this fashion the overall width is 8ft.

The power unit is a 79-h.p. F-244 Continental six-cylinder petrol engine, with 244 cu. in. displacement and a variable governor. Forward operating speeds range from 19ft. to 144ft. per minute, and reverse speeds are 19ft. per minute and 1.4 m.p.h. Travel speeds are 1.4, 2.5, 4.3, 7.6 and 10.7 m.p.h.

Dimensions

The overall width of the SJ-50 is 8ft. (transporting) and 12ft. lin. (operating). Overall length is 26ft. 9in. (transporting) and 32ft. lin. (operating), and the height is 11ft. 3in., both in the case of transporting and operating.

The weight of the tractor unit is 10,600lb., and the trailer unit, with attachment arm and jib hoist, weighs 7,945lb. At 10ft., the hydraulic jib hoist for loading and unloading the attachments has a capacity of 1 ton.

LONDON SHOP FITTINGS SHOWROOM

A showroom, designed to demonstrate the uses of Wilpower shop fitting equipment in various types of shop, has been opened at 231-242 St. John Street, London, E.C.1, by John Wilkins Equipment, Ltd.

Several architects and designers in the field of shop construction and design participated in the creation of the showroom, for which the co-ordinator was Ellis E. Somake, F.R.I.B.A. Each participant was allotted a "shop space" and was commissioned to produce a modern presentation with the use of the flexible range of Wilpower equipment, the ten sections into which the showroom has been divided each portraying a different kind of retail shop.

Apart from the staff of John Wilkins Equipment, the architects and designers who participated in the scheme were as follows: Hulme Chadwick, A.R.I.B.A., A.R.C.A., A.R.P.E.S.; Beverley Pick, F.S.I.A.; Professor Mischa Black, O.B.E., F.S.I.A., M.Inst.R.A.; Ellis E. Somake, F.R.I.B.A., F.R.S.A., M.S.I.A.; R. W. Freeborn, A.R.I.B.A.; J. Tandy, A.R.I.B.A.; Jim Downer, M.S.I.A.; and M. Thual, of Paris.

THREE-LAYER CHIP BOARD

Bartrev Board Co., Ltd., 5 St. James's Place, London, S.W.1, are now manufacturing a new three-layer structural board which will be marketed as Bartrev Black Edge. This has similar characteristics to the single layer board, but includes a smooth layer of fines on either side of the chip core. It will be stocked in 8ft. x 4ft. sheets in $\frac{1}{2}$ in. and $\frac{3}{4}$ in. thicknesses.

Trade and Company News**NEW COMPANIES**

The undermentioned particulars of new companies recently registered are taken from the daily register compiled by Jordan and Sons, Ltd., company registration agents, 116 Chancery Lane, London, W.C.2:—

J. E. Weller (Building Contractors), Ltd., 27-9 Whitfield Street, W.I. £100. Directors: Joseph E. Weller and Mrs. G. Weller, 22 Whittell Gardens, S.E.26.

Fawcett Construction (Contracting), Ltd. £100. Directors not named. Subscribers: P. A. G. Chavasse (clerk) and John Baldwin (solicitor), 18 Austin Friars, E.C.2.

J. Cowieson and Co., Ltd., 9-11 Bradshaw Street, Northampton, builders. £1,000. Directors: John M. Cowieson and Jean E. Cowieson, 149 Park Avenue North, Northampton.

Maslens of Devizes, Ltd., 14 Lincolns Inn Fields, W.C.2, builders. £5,000. Directors: Edward J. Bent, Draycot Park, Chippenham, Wilts. (permanent); Peter C. White, Roundway House, Devizes.

Briggs (Plant Hire), Ltd., Swinton Road, Mexborough. £5,000. Directors: Thomas H. Briggs, Bentlant Ferryboat Lane, Old Denaby, nr. Doncaster; Howard H. Briggs, 63 Springfield Road, Kilhurst, nr. Rotherham.

T. J. Hodges and Co., Ltd., 30 Station Road, South Norwood, S.E.25, builders. £100. Directors: T. J. Hodges and Mrs. A. E. Hodges, "Sunnymead," Copthall Avenue, Hawkhurst; M. D. Hodges address not stated.

Lightfoot and Walke (Looe), Ltd., Widgates, Looe, builders. £3,000. Directors: Ronald M. Lightfoot, 6 Holland Road, Nomansland, Looe; Arthur W. Walke, 11 Holland Road, Nomansland, Looe.

J. and A. Builders, Ltd., 41 The Hill, Northfleet, Kent. £1,000. Directors: John T. Wadsworth and Lilian R. Wadsworth, 18 Painters Ash Lane, Northfleet.

Head Wrightson India, Ltd., civil engineers. £100. Directors not named. Subscribers: D. J. Clifton, 11 Ellington Street, N.7; J. V. Waiters, 16 Albert Mansions, S.W.11 (clerks).

F. Dale and Co. (Builders), Ltd. £5,000. Directors: Fredk. P. J. Dale, 68 Haywards Road, Haywards Heath, Sussex; Denis F. Dale, The Cottage, Lewes Road, Scaynes Hill, Sussex; Dennis F. C. Jauns, Little Denbre, Lewes Road, Scaynes Hill, Sussex.

E. C. Guy, Ltd., 49 Leopold Road, N.2, builders. £100. Directors: Eric C. Guy, 49 Leopold Road, N.2; Bernard P. Howe, 5 Garth Way, N.12.

Civil and Structural Designs, Ltd., 53a High Street, Ewell. £100. Directors: Trevor J. C. Crocker, 54 Tattenham Grove, Tattenham Corner, Epsom; Eric S. Hibbert, Chalfont, Doods Way, Reigate; Wm. F. Johnston.

Davies Builders (Bournemouth), Ltd., Canford Chambers, St. Peters Road, Bournemouth. £100. Directors: Fredk. W. Clark, 40c Branksome Wood Road, Bournemouth; Cecil G. E. Wheeler, Old Pines, Martello Road, Canford Cliffs, Poole.

A. H. Lewis (Public Works Contractors), Ltd., Springfield, Carrington Road, Spalding. £1,000. Directors: Arthur H. Lewis and Betty W. Lewis, Springfield, Carrington Road, Spalding.

W. G. Wilson and Sons (Portsmouth), Ltd., building contractors. £2,000. Directors: Wm. G. Wilson (permanent) and Eric J. E. Wilson, 26 Myrtle Grove, Copnor, Portsmouth; Brian Wilson and Kenneth W. Wilson, S. G. and L. J. Tucker, Ltd., 36 Midland Road, Bristol, 2, constructional engineers. £1,000. Directors: Samuel G. T. Tucker, 290 Filton Avenue, Bristol, 7; Leslie G. Tucker, 9 Alexandra Gardens, Staple Hill, Bristol; Royston S. Daw, 36 Heron Road, Bristol, 5. M. and B. Smith, Ltd., builders. £500. Directors: Mrs. Margaret Smith, 12 Greenhill Avenue, Hellaby, Rotherham; Barrie E. Smith, 49 Barrie Grove, Hellaby, Rotherham.

D. A. Gayton and Co., Ltd., Greenside, Holne Cross, Ashburton, Devon, builders. £300. Directors: David A. Gayton and Pamela M. Gayton, Greenside, Holne Cross, Ashburton, Devon; William J. Crook, 71 Westabrook Drive, Ashburton, Devon.

V. Hurt and Son (Scaffolding), Ltd. £5,000. Directors: Victor W. A. Hurt and Winifred M. Hurt, 69 Haddenham Road, Leicester.

A. E. Bridgwaters and Sons, Ltd., 364 Bromford Lane, Ward End, Birmingham, 8, builders. £2,000. Directors: Alfred E. Bridgwaters, Ethel M. Bridgwaters and Delroy E. Bridgwaters, 6 Oak Rise, Coleshill, Warwicks.; Stanley T. Bridgwaters, 97 Chestnut Drive, Castle Bromwich, Birmingham.

Thomas Round and Sons, Ltd., 121a King William Street, Amblecote, Stourbridge, builders. £1,000. Directors: John J. C. Round and Mrs. Ruth N. Round, 234 Bretell Lane, Amblecote, Stourbridge.

Whiteman and Co. (Builders), Ltd., Coombe Martin, Jaywick Lane, Clacton-on-Sea. £100. Directors: Robert R. N. Whiteman and Mrs. Gladys M. E. Whiteman, Coombe Martin, Jaywick Lane, Clacton-on-Sea.

Cumbria Contractors, Ltd., Cumberland House, Scotch Street, Whitehaven, builders. £5,000. Directors: John G. Murtagh, Agnes Murtagh and John Murtagh, all of 19 Oxford Street, Workington.

Nesheim of Heswall, Ltd., 347 Pensby Road, Heswall, Wirral, builders. £8,000. Directors: Jostein Nesheim and Mrs. Beryl D. J. Nesheim, 347 Pensby Road, Heswall, Wirral; Arthur N. Sandbach, 189 Pensby Road, Heswall, Wirral.

Stenbergs Corporation AB, of Stockholm, manufacturers of Flygt fully submersible electric pumps, have changed their name to Flygt International AB.

Received from The British Granite and Whinstone Federation, 55-58 Pall Mall, St. James's, London, S.W.1, a copy of their latest pamphlet on "Sampling."

The services of the industrial plant department are dealt with in a new brochure published by Thos. W. Ward, Ltd., Albion Works, Sheffield.

Brown and Tawse Plant, Ltd., Ambrose Street, West Gorton, Manchester, 2, have produced a catalogue giving full information of their general services, a list of the various companies for whom they act, and a technical description of most of their products.

A leaflet describing the Q-Interwall, their new system of demountable internal walling, has been received from Robertson Thain, Ltd., Ellesmere Port, Cheshire.

Mercantile Credit Co., Ltd., have opened a new branch office at 11 Springfield Street, Warrington (Tel: Warrington 33366). Mr. W. A. Day has been appointed sub-branch manager.

J. E. Delacourt (Builders), Ltd., 36a South Coast Road, Peacehaven, Sussex. £1,000. Directors: John E. Delacourt and Gladys M. Delacourt, 34 Sunview Avenue, Peacehaven, Sussex.

Standwell Builders, Ltd. £5,000. Directors: Robt. W. Knight, 38 Long Row, Belper, Derbyshire; Joseph W. B. Highfields, 38 Long Row, Belper, Derbyshire; Gordon R. Booth, 106 Belper Lane, Belper.

Park Vale Building Co., Ltd., 21 New Road, Brentwood. £1,000. Directors: John R. Crawford, Cherry Acres, Ingrave Road, Brentwood; George C. Ansell, 23 Rose Valley, Brentwood.

Mobile Plant, Ltd., 6 Castilian Street, Northampton. £5,000. Permanent directors: Edward N. Lucas, Church Street, Moulton, Northampton; Wm. K. Lucas, Highlands, Ashley Lane, Moulton, Northants.

P. Masterson, Ltd., 24-5 Princes Street, W.I., public works contractors. £100. Directors: Patrick Masterson, 31 Kelvington Drive, St. Pauls Cray, Kent; John F. Reilly, c/o Calder, Branksome Avenue, Stanford-le-Hope, Essex.

Heavy Crane Hire, Ltd. £3,000. Directors to be appointed by subscribers. Subscribers: Dorothy M. Graeme, 61 Fairview Avenue, Gillingham, Kent; Cecil Rhodes, 174 Gillingham Road, Gillingham, Kent.

Fred. B. Lindsay and Sons, Ltd., builders. £7,000. Directors: David L. Lindsay and Linda Lindsay, 33 St. Peters Avenue, Haslingden.

A. A. Lake, Ltd., 41 Selhurst New Road, S.E.25, builders. £100. Directors: Alfred A. Lake and Bessie A. Lake, 41 Selhurst New Road, S.E.25.

McCormick and Lunt, Ltd., 18 Mill Street, Liverpool, 8, builders. £5,000. Directors: Wm. J. L. Lunt (permanent) and Mrs. S. J. Lunt, 91 Greenhill Road, Mossley Hill, Liverpool, 18.

J. W. Avery (Building Contractors), Ltd., 106 High Street, Southend-on-Sea. £1,000. Directors: Joseph W. Avery, 70 Gravel Road, Eastwood, Southend; Mary G. Avery, address not stated.

Bernard Smith (Stockport), Ltd., 39 St. Petersgate, Stockport, builders. £2,000. Permanent directors: Bernard Smith and Sylvia Smith, Leacroft, Buxton Old Road, Disley.

Pilgrim and Co., Ltd., builders. £10,000. Directors not named. Subscribers: George H. Pilgrim, Thomas Lonnergan and Ethel M. Lonnergan, all of 13 Reynolds Place, S.E.3.

T. Reddall and Associates, Ltd., consulting engineers. £100. Directors: Thos. G. W. Reddall, 37 Heath Drive, S.W.20.

Gainsborough Construction Co., Ltd., 114 Sandfield Lane, Gainsborough. £2,000. Directors: John Johnston, 114 Sandfield Lane, Gainsborough; Ernest Bingham, 39 King Street, Gainsborough; John N. P. Aizlewood and Leslie Jackson.

Sidney Taylor Plant Hire, Ltd., 134 High Street, Brierley Hill, Staffs. £10,000. Directors: Sidney J. Taylor and Mrs. Mary N. Taylor, 226 Wednesbury Road, Pleck, Walsall.

R. J. Evans (Maintenance), Ltd., Midland Bank Chambers, 152a Breck Road, Liverpool, 5, builders. £100. Permanent directors: Richard J. Evans and Mrs. Elizabeth E. Evans, Hillcrest, 98 Thingwall Road, Irby, Cheshire.

R. A. Haynes, Ltd., builders. £100. Directors: Robert A. Haynes and Mrs. Doris Haynes, 14 Whiteheath Avenue, Ruislip, Middlesex.

P.Z. Prestressing Co., Ltd., Burcott Lodge, Burcott Wing, Leighton Buzzard, prestressed concrete manufacturers. £1,000. Directors: Gunther M. Werner-Ehrenfeucht, Frankfurt, Germany; Frank Herbert Burcott Lodge, Burcott Wing, Leighton Buzzard; Emil C. R. Heitkamp, Alexander P. Mantschhoff and Hermann A. Brunner.

F. T. Heath and Co., Ltd., 455 Belgrave Road, E.10, builders. £500. Directors: Fredk. J. Heath and Mrs. Ellen M. Heath, 45 Belgrave Road, E.10; Mrs. Annie E. Heath, 48 Bryant Court, E.2.

J. J. Murphy and Co. (Colchester), Ltd., 2 Manor Road, Colchester, Essex, builders. £2,000. Directors: John J. Murphy, 7 Rawstone Road, Colchester; Charles S. Greetham, 51 Dugard Avenue, Colchester.

D. H. Willey and Co., Ltd., Ermine Lodge, Risegholme, Lincs., builders. £100. Directors: Douglas H. Willey, Ermine Lodge, Risegholme, Lincs.; Arthur D. Gilbert, 35 Bristol Drive, Lincoln.

M. J. Irwin, Ltd., 4 Highland Road, Earlsdon, Coventry, public works contractors. £1,000. Directors: Mathew J. Irwin and Alyss Irwin, 4 Highland Road, Earlsdon, Coventry.

Wilson Dodds (Painting Contractors), Ltd., Phoenix Works, Adolphus Street, Bradford, 1. £1,000. Directors: Wm. R. Dodds and Audrey Dodds, High Places, Tong Park, Baildon, Yorks.

TRADE NEWS IN BRIEF

"Hot Rolled Asphalt in Flexible Pavement Design" is the title of a new booklet which is available, free, from the Asphalt Roads Association, 14 Howick Place, London, S.W.1.

A new brochure and price list on Latham-clad timber cladding has been issued by the manufacturers, James Latham, Ltd., Leeside Wharf, London, E.5.

The services provided by Welding Supervision Ltd., and Cathodic Corrosion Control Ltd. (wholly owned subsidiaries of Constructors John Brown, Ltd.), have been amalgamated and are now provided by a single company—Corrosion and Welding Engineering, Ltd.

The new address of Merchant Adventurers, Ltd., is Hanworth Estate, Hampton Road West, Feltham, Middlesex. Tel: Feltham 3386.

The name of the Siemens and General Electric Railway Signal Co., Ltd., has been changed to S.G.E. Signals, Ltd.

United Dominions Trust's regional office in Croydon has been moved to new premises in Crown House, North End. Tel: Croydon 9-0473.

Bowmaker, Ltd., announce that their Harrow branch now operates from New College House, 21 College Road (Tel: Harrow 2383). The new telephone number of their branch at Centenary Buildings, Wrexham, is Wrexham 4733.

Mercantile Credit Co., Ltd., have opened a new branch office at 11 Springfield Street, Warrington (Tel: Warrington 33366). Mr. W. A. Day has been appointed sub-branch manager.

Current Constructional Activities

PROJECTS

CONTRACTS

AWARDS

THIS editorial feature provides readers with a comprehensive news service covering forthcoming private and public construction work. Commencing on this page information is given concerning future projects followed by details of tenders being invited. In the third section will be found news of tenders recommended for acceptance, tenders accepted and contracts awarded. Attention is also drawn to the advertisements covering contracts and appointments appearing in the front part of the *Journal*.

BUILDING AND DECORATING (See also Housing Schemes)

Barnet, Herts.—Ravenseft Properties, Ltd., 52 Charles Street, London, W.I., have reserved site of the former Gaumont Cinema, High Street, for the erection of a supermarket.

Basingstoke, Hants.—C.C. have approved plan for the erection of a new courthouse together with offices for justice's clerks and probation offices, etc., at London Road.

Bath, Som.—City Council have approved the provision of a flood-proof floor at the pavilion. Estimated cost £8,000.

Beverley, Yorks.—Leeds Regional Hospital Board have approved the erection of a new building on the Westwood Hospital site.

Billingham-on-Tees, Dur.—Plans have been prepared for re-siting church in Beamish Road. T. A. Crawford, architect, 91 Borough Road, Middlesbrough.

Elder and Lester, Town Square, are the architects for additions to Haverton Hill Workmen's Club.

Bishop Auckland, Dur.—Cackett, Burns Dick and Mackellar, 21 Ellison Place, Newcastle upon Tyne, have been appointed architects by the U.D.C. for the erection of covered swimming baths.

Bridlington, Yorks.—Leeds Regional Hospital Board have approved proposals for a new hospital on the Bessingby Hill estate.

Bromyard, Herefs.—R.D.C. to invite tenders for the erection of a new council chamber above the council offices at New Road.

Buckinghamshire.—E.C. are preparing plans for an extension to dining hall at Langley Grammar School, Slough.

Burton-on-Trent, Staffs.—Worthington and Co., Ltd., High Street, Burton-on-Trent, have applied to B.C. for planning permission to erect new licensed premises on site of three houses at Station Street.

Chertsey, Surrey.—Co. E.C. recommended to approve sketch plans for the adaptation of Pyrcroft House Nursery School. Estimated cost £10,153.

Cheshire.—Co. E.C. have received planning permission for the erection of a technical college at Hyde and a College of Further Education at Crewe during 1961-62. Estimated cost £398,500 and £600,000.

Darlington, Dur.—Borough Architect has prepared a £9,275 scheme for alterations to public abattoir; W. Richardson and Co., North of England Horticultural Works, are to erect industrial buildings in Lennard Street.

Dorking, Surrey.—B.C. recommended to approve scheme for an extension to Council offices of Pippbrook during 1961.

Durham.—Plans have been approved for the erection of new headquarters at Old Elvet for the Territorial Army and Air Force Association, and a contract will be settled within a few weeks. The architects are Newick and Blackbell, 58 John Street, Sunderland.

Eustree, Herts.—R.D.C. have approved plans for the erection of a seven-storey office and production facilities block at Clarence Road, Boreham Wood, for Associated Television, Ltd., A.T.V. House, Great Cumberland Place, London, W.I.

Enfield, Middx.—B.C. recommended to include in the 1961-62 programme, scheme for erection of a pavilion at Aldersbrook Avenue open space. Estimated cost £2,500.

Essex.—Home Office have approved site at Hill Hall for the erection of a semi-secure prison for women.

Farnham, Surrey.—Co. E.C. recommended to approve provision of four movable classrooms at Farnham Boys' Grammar School. Estimated cost £6,400.

Glendale, Northumb.—Waterhouse and Rounthwaite, consulting engineers, 165 West-

morland Road, Newcastle upon Tyne, are to prepare a scheme on behalf of the R.D.C. for open-air swimming pool at Wooler. The cost will be about £5,000.

Gosport, Hants.—Town Planning Committee have approved the erection of the Green Dragon licensed premises with living accommodation at Rowner Road, for Brickwoods, Ltd., Portsea, Portsmouth.

Grantham, Lincs.—B.C. recommended to approve plans and prepare bills of quantities for proposed slipper baths at rear of 15 St. Peter's Hill. Estimated cost £7,200.

B.C. recommended to approve the erection of a factory at 223 Dysart Road, for the Welland Manufacturing Co., Ltd., 2 Kings Newton Street, Leicester.

Guildford, Surrey.—C.C. recommended to approve plans for extensions at Pond Meadow Training Centre, Park Barn, during 1961. Estimated cost £6,004.

Hammersmith.—L.C.C. planning permission is being sought for an office building at Wood Lane for London Transport Executive. The architects are T. P. Bennett and Son, 43 Bloomsbury Square, London, W.C.1.

Harrogate, Yorks.—B.C. recommended to approve extension to out-patient and hydrotherapy department at Royal Bath Hospital, Cornwall Road, for Leeds Regional Hospital Board; erection of hall/gymnasium at Clarence Drive, for the Governors of Harrogate College.

Borough Engineer to prepare and submit a less elaborate scheme for the erection of an exhibition hall on the present Royal Hall Car Park.

Hendon, Middx.—Morgan and Branch, 8 Great New Street, London, E.C.4, are the architects for the erection of shops with offices over at the Goods Yard, Station Road, Edgware, for Churchgate Property Co., Ltd., Lane and Jewel, 15 Buckingham Palace Gardens, London, S.W.1, quantity surveyors; and Mark H. Smullen and Partners, 9 Mansfield Street, London, W.I., consulting engineers for the scheme.

Heston and Isleworth, Middx.—B.C. recommended to include in the 1961-62 programme scheme for provision of dressing accommodation and convenience at the Thornbury playing fields, London Road, Isleworth. Estimated cost £16,000.

Hull.—Ministry have authorised preparation of working drawings and bills of quantities for the erection of the new Western General Hospital, for Leeds Regional Hospital Board.

Huntingdonshire.—Ministry have approved the erection of youth centre on site of the proposed Sawtry Secondary Modern School, for E.C. Estimated cost £7,000.

E.C. propose the erection of a youth centre at Ramsey Secondary Modern School and the provision of a transportable classroom at Huntingdon Grammar School during 1961-62. Estimated cost £18,500 and £2,300 respectively.

Kingston-upon-Thames, Surrey.—Co. E.C. recommended to approve sketch plans for erection of two-storey extension providing two laboratories and preparation rooms for zoology and botany at Tiffin Boys' School. Estimated cost £13,420.

Kingston-upon-Thames, Surrey.—Austin Vernon and Partners, architects, 5 Buckingham Place, London, S.W.1, are preparing alternative plans for the erection of offices and boardrooms at Marsh Lane for the North Surrey Joint Sewerage Board.

Lambeth.—L.C.C. planning permission is being sought for a 10-storey office block at 10-11 Albert Embankment as an extension to Deca House. The architects are Oscar Garry and Partners, 66 Gloucester Place, London, W.1.

Leatherhead, Surrey.—Co. E.C. recommended to include in the 1960-61 programme, schemes for two new classrooms at the Greville County Primary School and provision of two movable classrooms at the Leatherhead County Secondary School and last instalment of remodelling Barnett Wood County Primary School, Ashtead, and the Great Bookham County Junior School.

Leeds.—Home Office have approved expenditure of £50,000 for new southern fire station for Leeds and Middleton Crescent, Dewsbury Road.

Regional Hospital Board have approved proposals to modernise Menston Hospital by the provision of acute psychiatric treatment and rehabilitation facilities, and the modernisa-

tion of six ward blocks in the main building, at a cost of £541,000.

Lincoln.—Walker, Coombes and Partners, 191 High Street, are the architects and A. E. Thornton-Firkin and Partners, 2 West Parade, quantity surveyors, for the erection of headquarters and a hostel, for the Lincoln Y.M.C.A.

Loughborough, Leics.—M.E. have approved scheme for extensions to De Lisle R.C. Secondary School. Estimated cost £10,000.

B.C. recommended to apply for sanction to borrow £1,950 for surfacing Wordsworth Road garage site with hardcore and the erection of 11 garages; approve the construction of a wall and surfacing area at rear of 1-2a Ling Road, with concrete. Estimated cost £1,500.

Town Planning Committee have approved scheme for extensions to factory premises at the corner of Bottles Lane and Belton Road, for William Cotton, Ltd., Baxtergate, Loughborough.

Luton, Beds.—B.C. to prepare detailed plans and specifications and invite tenders in due course for the erection of a corner shop and 7 dwellings at Amhurst Road; have approved sketch plans and are to prepare detailed plans and specifications with the view to invite tenders during the next financial year for the erection of public conveniences at Bridge Street in conjunction with the proposed omnibus station; have approved sketch layouts for submission to the Home Office for the erection of a civil defence control centre, headquarters and garage. Estimated cost £31,371.

M.E. have approved plans for the first phase of St. Joseph's Roman Catholic Infants' School.

F. J. Wills and Son, 199 Piccadilly, London, W.1, are the architects for the demolition and rebuilding of licensed premises, shops, offices and private car park on site of 13 King Street, for Henreys, Ltd.

Lydiate, Lancs.—W. J. Bruxby, 158 Buckham Road, Maghull, is preparing plans for new vicarage.

Malden and Coombe, Surrey.—B.C. have approved scheme for the first stage of extensions at Manor Park pavilion. Estimated cost £5,500.

Malvern, Worcs.—Standing Joint Committee have approved, for inclusion in the 1961-62 programme, the erection of new divisional police headquarters at Victoria Road, £88,000; magistrates' courts, £30,800; and ambulance station, £18,700.

Mexborough, Yorks.—Price Tailors, Ltd., Cardigan Crescent, Leeds, 4, are to erect a new factory. Estimated cost £200,000.

Middlesbrough, Yorks.—E. M. Lawson, Barras Buildings, Barras Bridge, Newcastle upon Tyne, has prepared plans for alterations and additions to the Laurel Club, Borough Road, for J. W. Cameron and Co., Ltd., Lion Brewery, West Hartlepool.

Kitching and Co., 21 Albert Road, are architects for office extensions at Newport Road for Rediffusion (North-East), Ltd., and additions to shop at Linthorpe Road for H. Newbold, Ltd.

Alterations are proposed to premises on Simpson Street light industrial site to form soft drinks factory for Gray Brothers (Soft Drinks), Ltd., J. V. Spencer, architect, Albert Road.

Alterations and additions are proposed to the Albert Social Club, Grange Road, for the Club Committee. T. A. Crawford, architect, 91 Borough Road.

Revised plans have been prepared for church hall at Marton Grove Road for St. Oswald's Church Council. Garbutt Archibald, architects, 23 Albert Road.

Alterations and additions are proposed at 24 Corporation Road to form departmental store for Baker Brothers. The architects are North and Partners, 40 Broadway, Maidenhead.

A revised site plan has been prepared for church hall at Beechwood for Canon J. McMullan. T. A. Crawford, architect, 91 Borough Road.

North Lonsdale, Lancs.—R.D.C. have approved the erection of public conveniences at Newby Bridge, Greenodd and Ferry Landing. Estimated cost £5,700.

North Shields, Northumb.—Tyne Brand Products, Ltd., Bell Street, are to extend their factory at Brewhouse Bank. No contracts have been let. The architects are A. K. Tasker and Partners, 25 New Bridge Street, Newcastle upon Tyne.

Nottingham.—Ministry have approved the erection of a 10-storey building comprising shops, car park, offices and restaurant at junction of Hounds Gate, Maid Marian Way, for George H. Fletcher and Sons, Ltd., Derby Road, Heanor, Derby.

Peterborough.—City Council recommended to appoint L. G. Mouchel and Partners, consulting engineers, Southbank House, Black Prince Road, London, S.E.11, to prepare a scheme for an indoor swimming pool; prepare plans for a central depot at Padholme Road; include in 1961-62 estimates scheme for repairs to open air swimming pool. Estimated cost £3,160.

Richmond, Surrey.—Home Office to include in the 1961-62 programme scheme for the construction of a fire station for C.C.

Salford, Lancs.—M.E. have approved additions at the new Peel Park Technical College in Leaf Square, Pendleton. Halliday and Agate, architects, 2 Fountain Street, Deansgate, Manchester. Estimated cost £1m.

Scunthorpe, Lincs.—B.C. recommended to include the following schemes in the 1961-62 programme: Ashby Market, £10,000; cold storage facilities at slaughterhouse, £5,000; provision of additional slaughtering facilities, £10,000; extensions to the civic theatre, £8,000; reconstruction of east side of Doncaster Road Baths and the provision of a therapeutic suite, £20,000; extensions to various museums, £5,000; branch libraries at Riddings and Park Ward, £15,000 and £5,000 respectively.

B.C. recommended to approve scheme for the erection of a children's shelter and convenience at Ashby Road, Central Park; approve in principle, the provision of public conveniences between Kingsway and Doncaster Road, in the vicinity of Berkeley roundabout.

Seaham, Dur.—Seaham Labour Party are to erect a social club at The Avenue. J. M. Angus, architect, 3 Gallowgate, Newcastle upon Tyne.

Sheffield.—R. Hemingway, 3 Castlewood Road, Sheffield, 10, is the architect for the erection of village hall at Brampton.

Sheffield.—Tenders are to be invited soon from a selected list of contractors for the erection of an office block on the Leopold Street site for the Abbey National Building Society. Ronald Ward and Partners, architects, 29 Chesham Place, London, S.W.1, and E. R. Babbs and Sons, quantity surveyors, 187 Piccadilly, London, W.1. Estimated cost £250,000.

Somerset.—Co. Planning Committee have approved, subject to conditions, plans for the erection of a holiday camp at Minehead for Butlins, Ltd., 439 Oxford Street, London, W.1.

Co. E.C. have approved the erection of a new workshop block at Cannington Farm Institute. Estimated cost £14,000.

Southend-on-Sea, Essex.—B.C. recommended to approve detailed plans for the proposed cliffs pavilion.

South Shields, Dur.—Negotiations are proceeding with the local authority for a site on the Marsden estate for the erection of a Church of the Latter Day Saint.

Spennymoor, Dur.—Scheme for the erection of new headquarters offices at Spennymoor for the No. 4 area of the Durham Divisional Coal Board is to proceed, and tenders will be considered shortly. The premises will cover about 40,000 sq. ft., and are scheduled for completion in the summer of next year. Plans are by the N.C.B. Divisional Architects' Department, Team Valley Trading Estate, Gateshead.

Stafford.—B.C. propose the erection of a crematorium at site near Tixall Road. Estimated cost £77,000.

Strood, Kent.—R.D.C. have applied for sanction to borrow £2,500 for the erection of 2 lock-up garages at Steadman Close, Higham, 6 at Mountbatten estate, Higham, and 4 at Racefield Close, Shorne.

Sunderland, Dur.—It is proposed to convert the Regent Cinema, Ryhope Road, into a self-service store with flats above. The architects are S. John Hill and Partners, 2 Whitfield Street, Gloucester.

B.C. recommended to include in its annual estimates £80,000 for the construction of a sun-deck to cover the lower promenade between Seaburn and the borough boundary at Whitburn. The project is part of a large development scheme at Seaburn, estimated to cost £287,000.

Surrey.—C.C. recommended to include in the 1960-61 programme scheme for the adaptations and improvements to central stores and breathing apparatus testing room at the Fire Brigade headquarters. Estimated cost £13,000.

Taunton, Som.—B.C. recommended to approve scheme for alterations and improvements to the swimming baths, estimated cost £5,700 and the extension and adaptation of the municipal buildings to provide a civic suite and new council offices, also to incorporate

an underground car park and public conveniences.

Torquay, Devon.—Ministry have approved plans for extension to accommodate an additional 100 beds and auxiliary offices including theatres, outpatient facilities, a pathology section, pharmacy and stores at Torbay Hospital, Lowe's Bridge, for South Western Regional Hospital Board.

Twickenham, Middx.—B.C. to include in the 1961-62 programme, schemes for improvements at the Craneford Way depot, £6,200, various alterations and new plant at the Charlton refuse disposal works, £51,500.

Upton-on-Severn, Worcs.—Standing Joint Committee have approved the provision of cells and the modernisation of Upton-on-Severn sub-divisional police headquarters during 1961-62. Estimated cost £4,500.

Walthamstow, Essex.—B.C. to prepare revised plans for the proposed community centre at Grange estate.

Wellingborough, Northants.—U.D.C. are to invite tenders for the external painting of 88 houses at Kingsway, 100 at Finedon and 353 at Wellingborough.

West Bromwich, Staffs.—B.C. recommended to appoint R. Sheppard, Robson and Partners, 5 Southampton Place, London, W.C.1, and H. J. Cadbury-Brown, 17 Clarges Street, Piccadilly, London, W.1, respectively, as architects, for the erection of the Hill Farm Secondary School and junior department of the Grove Vale Primary School.

Westminster, L.C.C. planning permission is being sought for an office building with residential accommodation at 16-18 Buckingham Gate, and 43, 47 and 49 Catherine Place. The architects are R. Seifert and Partners, 34 Red Lion Square, London, W.C.1.

Weston-super-Mare, Som.—South Western Regional Hospital Board have reserved site at Uphill for the erection of a new hospital.

Wimbledon, Surrey.—Co. E.C. recommended to approve sketch plans for the provision of a practice theatre workshop at Wimbledon School of Art. Estimated cost £19,557.

Worthing, Sussex.—Willenhall Hotels, Ltd., have submitted to Town Planning Committee for approval, scheme for the demolition of Bath Hotel at Bath Road and the erection of an 11-storey block of 64 flats on the site. Fewster and Gamble, 5 Liverpool Gardens, Worthing, are the architects, and George Winton, 44 High Street, Findon, Worthing, is the quantity surveyor for the scheme.

Wrexham, Denbighs.—B.C. have approved site at Bodhyfryd for the erection of the proposed new swimming baths.

DEMOLITION

Barnsley, Yorks.—B.C. have approved the demolition of the Wellington Hotel.

ELECTRICAL

Bournemouth, Hants.—B.C. propose the installation of traffic lights at the cross-roads formed by the St. Paul's Road and Waverley Road joinings with the main thoroughfare, Holdenhurst Road. Estimated cost £3,600.

FENCING

Enfield, Middx.—B.C. recommended to include in the 1961-62 programme, scheme for the fencing of the babies' pool at the swimming pool. Estimated cost £2,500.

GAS AND WATER SUPPLY

Dewsbury, Yorks.—B.C. recommended to apply for sanction to borrow £1,200 for laying of 390yd. of 4in. water main and 108yd. of 2in. main on the new housing site at present in course of development at Thornhill Lees; to authorise the re-laying of water mains in Temple Road and Huddersfield Road with 34yd. of 6in. main and 220yd. of 4in. main. Estimated cost £1,109.

Douglas, I. of M.—Water Committee have prepared scheme for the lining of a 4in. main from Snugborough to Trolleyby river bridge. Estimated cost £1,500.

Haverfordwest, Pembs.—Precelly Water Board are to proceed, for submission to Welsh Office, for approval, with detailed plans for the construction of a reservoir at Diamond Hill, half a mile up the valley from Merlin's Bridge, estimated cost £500,000; and are to invite tenders from specialist firms to carry out borehole explorations of the Diamond Hill site, including prices for investigating alternative sites for a barrage in the higher reaches of the River Cleddau.

Huntingdon.—B.C. recommended to apply for sanction to borrow £137,000, the council's proportion of the estimated cost of the river intake, water treatment plant, reservoir and pumping station.

Llanelli, Carmar.—R.D.C. to prepare for submission to C.C. for approval draft plans for the Upper Towy water abstraction scheme.

Loftus, Yorks.—U.D.C. considering a £27,250 water supply scheme for Liverton Village, and improving the water supply to Liverton Mines.

Lostwithiel, Corn.—Ministry have approved B.C.'s water supply improvement scheme and tenders are to be invited.

Loughborough, Leics.—B.C. recommended to proceed with the construction of a 12in. main with connections at Nanpantan Road. Estimated cost £7,500.

Mitford and Launditch, Norfolk.—C.C. recommended to approve in principle R.D.C.'s revised water supply scheme for Great Dunham. Estimated cost £8,500.

Stockton-on-Tees, Dur.—Tees Valley and Cleveland Water Board, Middlesbrough, have approved interconnecting of the existing supply main at Norton Green with the trunk main and the laying of 234yd. of 4in. main to remedy the deficiency at a total estimated cost of £1,100.

Wiltshire.—West Wilts. Water Board have approved for inclusion in the 1961-62 capital expenditure programme the following: For completion of works in hand on the Mere and Tisbury comprehensive scheme, £31,000; laying of an 18in. main from Arn Hill to Upton Scudamore (2,133yd.), £25,000; provision of service mains in the Devill Valley, £17,000; replacement of 10in. and 7in. trunk mains between Upton Scudamore and Old Dilton with 18in., £14,000; Westbury Leigh booster station, £1,300; replacement of 3in. main with new 6in. at The Street, Hilberton, £3,575; 12in. and 15in. trunk main from Mere Down to Crookerton pumping station, £32,000.

Worksop, Notts.—B.C. are to apply for sanction to borrow £20,645 for the provision of a new 12in. trunk water main between Sunnyside pumping station and Bridge Street/Potter Street junction.

HARBOURS, PIERS AND SEA DEFENCE WORKS

Bridlington, Yorks.—B.C. considering the erection of a retaining wall to hold back a section of the bank on the South Cliff. Estimated cost over £5,000.

Falmouth, Corn.—B.C. to submit to Ministry for grant aid coast protection scheme for the cliffs on eastern side of Gyllyngvase Beach. Estimated cost £2,000 to £5,000.

Felixstowe, Suffolk.—Land Drainage Committee of the East Suffolk and Norfolk River Board have approved for submission to Ministry for approval, scheme for increasing the height of the Landguard Marsh river wall by 2ft. between Felixstowe Dock and Fagbury Cliff. Estimated cost £69,000.

Portsmouth.—Cleansing and Haulage Committee have approved scheme for the reclamation of part of Eastney Lake. Estimated cost £105,000.

HEATING AND VENTILATING

Darlington, Dur.—B.C. appointed G. N. Haden and Sons, 79 Quayside, Newcastle upon Tyne, as consulting engineers for the heating installation at the new Branksome Secondary School.

Leicester.—Sheffield Regional Hospital Board recommended to appoint Pick, Everard, Keay and Gimson, 6 Millstone Lane, Leicester, as consulting engineers, and E. S. Rose and Cooper, 94a London Road, Leicester, as quantity surveyors for engineering, mechanical and electrical services at Leicester Royal Infirmary.

Mansfield, Notts.—Sheffield Regional Hospital Board recommended to appoint Myles-White and Associates, White Hart Chambers, Mansfield, as architects, and K. W. Dale and Partners, 9a Sackville Street, London, W.1, as consulting engineers for the replacement of mechanical service mains at Mansfield and District General Hospital.

Ripley, Derbys.—Sheffield Regional Hospital Board recommended to appoint P. G. Peter and Associates, 193 Victoria Street, London, S.W.1, as consulting engineers for the provision of new boiler plant and mechanical services for outpatients' department and clinical accommodation at Ripley and District Hospital.

Spenborough, Lincs.—B.C. recommended to include in the 1961-62 programme, scheme for the installation of a boiler plant and heating and ventilating system at Doncaster Road Baths. Estimated cost £38,000.

HOUSING SCHEMES

Aylesbury, Bucks.—B.C. have approved plans for the development of Bedrove estate comprising of 14 houses and 14 garages, Goosen Green; 26 houses and 26 garages at Wymering Road; and 163 houses and garages for H. C. Janes, Ltd., 189 High Town Road, Luton, Beds.

Belvoir, Derbys.—R.D.C. propose the erection of 20 old people's bungalows at Duffield and eight bungalows at Denby during 1961.

Blaydon, Dur.—J. W. Vickers, 4 Plummer Street, Newcastle upon Tyne, proposes 19 houses at The Avenue, to plans by C. Solomon, 30 St. Mary's Place, Newcastle upon Tyne.

Bridgnorth, Salop.—B.C. recommended to approve amended layout plans for the erection of police houses at the junction of Tasey Lane and the main Shrewsbury Road, for C.C.

Chippingham, Wilts.—B.C. recommended to include flats for single persons in scheme for 150 dwellings adjoining Brook Street.

Crewe, Ches.—B.C. have approved in principle plans prepared by the Reema Construction Co., Milford Manor, Salisbury, Wilts, for the development of land at Moat House Farm as a housing estate including an 11-storey block of flats.

Dover, Kent.—Town Planning Committee have approved, subject to conditions, scheme for residential development beside the Cricketers' Hotel public house at Crabtree Avenue, for Fremlins, Ltd., 14 Black Lion Street, Brighton 1.

Goole, Yorks.—B.C. Planning Committee have approved plans for 84 dwellings and garages on land between Rawcliffe Road and Lansdown Road for Henry Boot and Sons, Ltd., Banner Cross Hall, Eccleshall Road South, Sheffield.

R.D.C. have approved the erection of 17 houses at Airmyn for H. W. E. Timm, Boothferry.

Grantham, Lincs.—B.C. recommended to approve plans for the erection of 35 houses with garages at Harlaxton Road, for H. C. Janes, Ltd., 189 High Town Road, Luton, Beds.

Halstead, Essex.—R.D.C. to submit to Ministry for approval detailed plans for the erection of a block of old people's flats comprising 16 flats, four bungalows linked to main block and warden's accommodation, etc., at Greenfarm estate, Earls Colne.

Harrogate, Yorks.—B.C. recommended to approve in principle, scheme for the erection of a five-storey block of flats at Beech Grove, H. Webster, architect, 6 Vernon Street, Leeds, 2.

Havant and Waterloo, Hants.—U.D.C. have approved plans for the erection of 30 houses and 17 bungalows on part of site at Crookhorn Lane, for J. C. Nicholls, Ltd., Fitzherbert Road, Farlington, Cosham.

Hebburn, Dur.—U.D.C. considering the erection of 100 three-bedroom houses for sale.

Hexham, Northumb.—R.D.C. to prepare plans for a two-storey building at Corbridge, comprising two flats for old people; to apply for sanction to borrow £33,570 for erection of 8 aged persons' bungalows, 8 houses and 5 garages at Stocksfield.

Llanelli, Carm.—B.C. have approved in principle, layout of the former Old Lodge titplate works as a housing site, to include the provision of an eight-storey block of flats and four-storey maisonettes.

Loughborough, Leics.—B.C. recommended to negotiate a tender with William Davis and Co. (Leicester), Ltd., Forest Fields, Forest Road, Loughborough, for the completion of 32 flats and one house at the corner of Beacon Road and Park Road.

Luton, Beds.—B.C. to prepare detailed plans and specifications with a view to invite tenders for the erection of 4 bungalows for aged persons at the rear of No. 29 Compton Avenue; layout plans for the erection of 4 shops at Wigmore Lane, Ramridge Estate.

Maidstone, Kent.—B.C. recommended to submit to C.C. for approval outline plans for multi-storey flats on sites at Boxley Road, Quarry Square and James Street.

B.C. propose, subject to Ministry approval, the erection of 300 dwellings during this year.

Monmouth.—B.C. recommended to approve scheme and invite tenders for the erection of 15 flats at rear of Cinderhill Street.

Northwich, Ches.—Ministry have approved U.D.C.'s scheme for the erection of 412 houses on land at Thorn Farm, Hartford.

Peterlee, Dur.—Peterlee Development Corporation, Shotton Hall, are to erect 106 houses on the Chapel Hill estate. A contract will be let early next month. Plans are by the Development Corporation's own architects' department.

Rotherham, Yorks.—R.D.C. to apply for sanction to borrow £52,106 for erection of four flats at Ravenfield, eight flats at Brinsworth, two bungalows at Ulley, four flats at Orgreave, four flats at Harley, and 18 dwellings at Whiston.

Strood, Kent.—R.D.C. have invited Selleck Nicholls and Co., Ltd., St. Austell, Cornwall, to submit a scheme for the first stage of the development of the housing site at Bush Road, Cuxton, comprising 2 dwellings, four shops and maisonettes and lock-up garages.

Strood, Kent.—R.D.C. to apply for sanction to borrow £43,500 for six flats at Walnut Tree Inn, Halling; six flats at Crampton Cottages, Hoo; three pairs of bungalows at St. James' Road, Grain; and three pairs of houses at Sheppards Way, Stoke.

Walsall, Staffs.—B.C. have approved layout plans for the erection of five blocks of three-storey flats at Dudleys Fields estate.

Wednesbury, Staffs.—B.C. recommended to appoint H. Vale and Sons, 47 Waterloo Road, Wolverhampton, as quantity surveyors for the erection of houses at Hydes Road site.

Woking, Surrey.—Town and Country Planning Committee have approved plans for erection of 54 flats in two three-storey blocks, two pairs of houses and children's playground, 12 garages, etc., on site at Alpha Road, Maybury estate, for U.D.C.

PLAYING FIELDS, PARKS, ETC.

Aylesbury, Bucks.—B.C. recommended to include in the 1961 estimates, scheme for the provision of The Garden of Rest on land adjoining the Turnfurlong depot. Estimated cost £9,250.

Birmingham.—City Council recommended to approve schemes for layout as a public open space of land linking Heneage Street to St. Matthew's Church, Great Lister Street, Nechells Green (£19,650); St. James's Street area, Nechells Green (£12,650); Spooner Street and Scott Street area (£8,750); junction of Alcester Street and Leopold Street, Highgate (£3,100); Upper Highgate Street (£11,000); vicinity of Vere Street (£16,000); extension at Bell Barn Road and Lee Bank Road (£32,900); and residential areas in the Alston Street area (£10,500).

Enfield, Middx.—B.C. recommended to include in the 1961-62 programme, scheme for St. Andrew's Churchyard Memorial Garden, £2,000, layout of children's playground at Aldersbrook Avenue open space, £4,200; layout of Enfield playing fields, £8,500.

Folkestone, Kent.—B.C. recommended to approve for inclusion in 1961-62 programme, scheme for the layout of site of Christ Church as a garden. Estimated cost £1,150.

Larne, Antrim.—B.C. have approved a scheme for the provision of new playing fields at the old golf course, Craigy Hill. Estimated cost £25,000.

Loughborough, Leics.—B.C. recommended to apply for sanction to borrow £15,000 for the second stage of development of the Derby Road Playing Fields.

Melksham, Wilts.—U.D.C. recommended to prepare scheme and obtain estimates for the extension of the plateau on King George's playing field to provide another football pitch, two hard tennis courts and a bowling green.

Penshurst, Kent.—Middlesex E.C. recommended to approve the provision of an open air swimming bath with electric heating at Swaylands Residential Special School. Estimated cost £3,000.

Sunthorpe, Lincs.—B.C. recommended to include the following schemes in the 1961-62 programme: Ashby Ville recreation centre, £40,000 and Redgara pitch and floodlighting, £3,500; Crosby Vicarage—layout, etc., £2,750; Sheepfield Park—paddling pool, £5,000; Quibell Park—layout, etc., £30,000; Oxford Street—layout, children's playground and Constitutional Club, £19,500, £1,500 and £4,075, respectively.

Worcester.—Standing Joint Committee have approved scheme for the levelling of the sports field at Hindlip Hall county police headquarters to provide separate rugby and soccer pitches during 1961-62. Estimated cost £4,600.

RIVER AND FLOOD PREVENTION WORKS

Chippenham, Wilts.—B.C. recommended to approve in principle scheme for increasing the channel capacity of the river from the Sea Cadets' headquarters downstream to the Westmead waterworks, for the Bristol Avon River Board.

Elesmere Port, Ches.—Cheshire River Board recommended to prepare preliminary plans for the construction of a tunnel beneath the Manchester Ship Canal to relieve flooding in the Rivacre Valley area. Estimated cost £50,000.

Harrow, Middx.—C.C. recommended to approve scheme for improvements to a section of the banks of Wealdstone Brook adjacent to Alicia Close, Kenton. Estimated cost £1,000.

Highbridge, Som.—Lower Axe Drainage Board have approved in principle scheme to improve waterways between Berrow Corner and the River Axe at Lymnsham Wharf to relieve flooding in the village of Brent Knoll. Estimated cost £6,000.

Lynton, Devon.—Devon River Board are preparing scheme to relieve flooding in the village of Brendon including the widening of the waterway under the village bridge. Estimated cost £22,000.

Somerset.—Somerset River Board are preparing scheme for the improvement of the River Tone.

Suffolk.—Land Drainage Committee of the East Suffolk and Norfolk River Board have

approved scheme for the improvement of 2½ miles of the right bank of the River Chet between Hardley Cross and Pye's Mill. Estimated cost £21,460.

ROADS, BRIDGES AND SITE WORKS

Abram, Lancs.—U.D.C. to apply for sanction to borrow £5,521 for reconstruction of Talbot Road.

Bagshot, Surrey.—R.D.C. recommended to approve major road improvement schemes for Chobham by-pass between Vicarage Road and Woking Road (£77,000); reconstruction and widening of Chobham Road railway bridge, Sunningdale (£48,000); Bisley bridge diversion (£38,000); and work on the A.30 (£34,125).

Barnet, Herts.—U.D.C. to proceed with the provision of a car park at Barnet playing fields. Estimated cost £2,500.

Birmingham.—City Council recommended to approve schemes for the construction of a temporary vehicular bridge at the High Street, Bordesley/Camp Hill junction with Coventry Road, estimated cost £34,100; replacing the existing temporary bridge over the River Cole at Lea Ford Road by the erection of a permanent bridge, £57,750.

Bristol.—City Council recommended to apply for sanction to borrow £123,200 for the widening of High Street, portions of Wine Street and Bridge Street and provision of service roads and amenity features, £6,300 for laying out of the back of the Bridge Street amenity area and £13,400 for road improvements at Fishponds trading estate.

Calne and Chippenham, Wilts.—R.D.C. to apply for planning permission to construct a car park at Lacock. Estimated cost £2,500.

Epsom and Ewell, Surrey.—B.C. recommended to obtain tenders from selected contractors for construction of a link road at Hook and Chessington Roads. Estimated cost £30,000.

Hull.—City Council recommended to approve the construction of a concrete bridge over the Hesle Road crossing. Estimated cost to cost more than £262,000.

Hunstanton, Norfolk.—U.D.C. have received planning permission for the construction of a car park on land alongside the cliff face south of the Le Strange Arms Hotel.

Linakshire.—Home Department have approved the construction of a pedestrian footbridge at Muirhall Terrace, Salsburgh, for C.C. Estimated cost £9,000.

C.C. have drawn up a £2m. three-year road programme at the request of the Scottish Home Department. The proposals include 60 projects, five of which will cost more than £100,000 each.

Londonderry.—City Council recommended to carry out improvements to Eastway, Creggan. Estimated cost £29,259.

Loughborough, Leics.—B.C. recommended to include following in the 1961-62 programme: Valley Road, 24ft. carriageway, £2,300; Service Road, Park Road junction with Loughborough by-pass, £1,500; car park over Cattle Market, £10,000; Knightthorpe Road reconstruction, £8,500; Swingbridge Road reconstruction, £5,750; Leopold Street reconstruction, £4,000; Meadow Lane Bridge, £4,000; and roadworks, seeding, etc., Beacon Road site, £1,200.

B.C. recommended to prepare layout plans for the construction of a bus station and a car park.

Luton, Beds.—B.C. have approved plans for the making-up of and the provision of class A street lighting at Austin Road from the junction with Culverhouse Road to the junction with New Bedford Road.

Maidstone, Kent.—B.C. recommended to include in the 1961-62 programme scheme for the widening of the second section of Willington Street between Cheshire Road and Northumberland Road, estimated cost £17,000; apply for sanction to borrow £1,300 for the extension of the temporary car park at the junction of Church Street and King Street; submit to C.C. for approval and invite tenders for the construction of a multi-storey car park at Medway Street car park; prepare a scheme for improvements to Heathfield Road.

Manchester.—City Council recommended to approve major development scheme for Manchester Airport, involving the extension of main runway from 7,500ft. to 11,000ft. Estimated cost £34m.

Norfolk.—C.C. recommended to approve the following road improvement schemes: A.149—Heacham, from existing by-pass northwards to Hunstanton, £45,000; A.146—Holverstone, north-west of recent improvement, £20,000; A.143—Homersfield, adjoining station, £5,000; A.1151—Snowston, by Blue Boar public house, £8,000; B.1150—North Walsham, Norwich Road, near water tower, £5,000; B.1153—Wymondham, near Cole's Farm, £3,000; B.1145—Stanfield, near Maid's Head public house, £9,000; B.1150—Horstead, opposite the Recruiting Sergeant public house, £8,000.

C.C. recommended to approve plans for private street works at Upper Stafford Avenue, Smithdale Road, Ruskin Road and Oval Road at Costessey and Stonehouse Road (part) at Sprowston.

Peterborough.—City Council recommended to approve in principle, schemes for major improvements to Wharf Road, Church Street and Oxney Road and provision of traffic roundabout at Burghley Square. Estimated cost £4,000, £37,000, £25,000 and £5,700, respectively.

Portsmouth.—City Council recommended to apply for sanction to borrow £7,000 for street works at Dundas Lane, £9,400 for roads and sewers at South Wymering Farm and £21,500 for extension of roads at the shopping centre, Leigh Park.

Romford, Essex.—B.C. recommended to apply for sanction to borrow £34,000 for the construction of a permanent car park and service road in the Angel Yard area.

Scunthorpe, Lincs.—B.C. recommended to include the following schemes in the 1961-62 programme: Scrodes extension, £3,500; School Road widening, £2,000; Ashby Road Bridge, £3,000; Grange Lane North—extension to East Common Lane, £10,000; Brigg Road widening (East Common Lane to Ashby Ville), £3,000; High Street widening, £20,000; Glebe Pit Road, £3,000; highways depot extension, site-works and garage, £3,500; car parks at Glebe Pit, Dunstall Street and Ashby High Street, £1,100, £2,000 and £2,000, respectively.

B.C. recommended to approve scheme for the making-up of West Common Lane to west of junction with Glover Road.

Southwold, Suffolk.—B.C. recommended to apply for sanction to borrow £5,200 for the improvement of the existing car park lying between the sea wall and the boating lakes north of the pier, Southwold, and the laying out of a new area of car park to the north of the aforementioned area; approve the preparation of a car park adjoining the new sea wall and the boating lakes.

Twickenham, Middx.—B.C. to include in the 1961-62 programme, scheme for provision of car parks at various sites. Estimated cost £3,000.

Wednesbury, Staffs.—B.C. recommended to approve plan showing proposals for the widening of the road and the construction of a new railway bridge at Woden Road East.

Wigan, Lancs.—B.C. to reconstruct Poolstock Lane from St. Paul's Avenue to Marcus Bridge. Estimated cost £13,000.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Blofield and Flegg, Norfolk.—C.C. recommended to approve in principle R.D.C.'s sewerage and sewage disposal scheme for Blofield and Brundall. Estimated cost £220,000.

Braintree and Bocking, Essex.—Ministry have approved modified schemes for improvements and extensions to the Braintree sewage disposal works and the provision of a heated sludge digestion scheme at Bocking, for U.D.C. Estimated cost £50,500 and £231,000.

Bridgnorth, Salop.—B.C. recommended to appoint Sir Arnold Waters and Partners, 25 Temple Row, Birmingham 2, as consulting engineers for the sewerage and drainage of Low Town, Danesford and Quatford, to cater for existing and anticipated development in the area.

Durham.—Ministry have approved scheme for sewerage works at Bearpark, for R.D.C. Estimated cost £45,000.

Harrogate, Yorks.—B.C. have approved in principle, the preparation of scheme for drainage of a section of the Harlow Hill area, including Harlow Grange, and the bungalows in the grounds. Estimated cost £11,730.

Hartismere, Suffolk.—C.C. Water Supplies and Sewerage Committee have approved for grant aid scheme for improvements to Stradbrooke sewage disposal works, for R.D.C. Estimated cost £1,950.

Hartley Wintney, Hants.—R.D.C. to proceed with main drainage scheme for Rotherwick.

Hertfordshire.—Ware R.D.C. have recommended Braughing R.D.C. and the Parish Councils of Much Hadham, Little Hadham, Widford and Wareside to adopt for submission to Ministry for approval outline scheme for the construction of joint sewerage works. Estimated cost £235,000.

Loddon, Norfolk.—C.C. recommended to approve in principle R.D.C.'s sewerage and sewage disposal scheme for Norton Subcourse and Thurlton. Estimated cost £36,819.

Luton, Beds.—B.C. to invite tenders for the construction of the sewage purification works at Chalton Sewage Works at the end of February and for the sludge treatment plant approximately six months later.

Peterborough.—City Council recommended to approve programme for extensions to sewage purification works: (Contract 16) Power house and compressor house machinery.

tenders April 1961, delivery of machinery July 1962; (17) modification of existing power house and new compressor house, tenders December 1961, substantial completion of works July 1962; (18) civil engineering works, tenders March 1962.

City Council recommended to include in 1961-62 draft estimates, scheme for laying foul sewer in Palmers Road. Estimated cost £2,000.

Scunthorpe, Lincs.—B.C. recommended to include the following schemes in the 1961-62 programme: Westcliff area—off-site surface water drainage, £23,000; Westcliff area—foul water drainage, £13,500; Normanby Road drainage, £14,000; Dawes Lane relief sewer, £3,000; Ashby sewage works—detritor, etc., £15,000; and additional humus tanks and filters, etc., £10,000.

Twickenham, Middx.—B.C. to include in the 1961-62 programme, schemes for the first instalment of a new surface water sewer at Teddington, £50,000, completion of the East Twickenham sewerage scheme, £2,000.

Uxbridge, Middx.—B.C. recommended to approve scheme for the improvement of surface drainage in the Hillington Court Park area. Estimated cost £33,500.

Vaynor and Penderyn, Brecons.—R.D.C. to submit to Ministry for approval plans for the reconstruction and alteration of the Trefechan sewage disposal works. Estimated cost £11,870.

Wanstead and Woodford, Essex.—B.C. recommended to apply for sanction to borrow £101,900 for stage 2 of the Eastern sewage works reconstruction scheme.

STREET LIGHTING

Great Yarmouth, Norfolk.—B.C. recommended to approve scheme for replacement of columns and fittings on North Drive between Barnard Avenue and Jellicoe Road and also over Jellicoe Road bridge, estimated cost £4,300; include in 1961-62 programme street lighting schemes for Duke Road and Beech Road, Gorleston, £2,100 and £1,900, respectively.

Maidstone, Kent.—B.C. recommended to apply for sanction to borrow £1,246 and £5,928 respectively for the provision of street lighting at Willington Road and extension of Stage 2 of the street lighting improvement scheme.

Twickenham, Middx.—B.C. to include in 1961-62 programme, scheme for the next stage of street lighting improvements. Estimated cost £57,000.

Wednesbury, Staffs.—B.C. recommended to approve the provision of sodium lighting in Oxford, Alma, Elwell and Friar Streets and mercury lighting in Hobs Road. Estimated cost £1,800.

Wilton, Wilts.—B.C. recommended to prepare scheme for provision of street lighting in Burcombe Lane.

CONTRACTS

*Full details of the Contracts marked * will be found in our Advertisement Columns.*

BUILDING AND DECORATING (See also Housing Schemes)

Atcham, Salop.—External decoration of 192 houses on various sites for R.D.C. The Council will consider separate tenders for smaller groups of houses. Documents from the Surveyor, 24 St. John's Hill, Shrewsbury. Tenders by Feb. 2.

Baildon, Yorks.—External painting work on the Knoll estate, for U.D.C. Contract A—135 houses; contract B—82 houses. Documents from the Housing Manager, Town Hall, Baildon. Tenders by Feb. 10.

Ballymoney, Antrim.—Erection of an equipment store and provision of an access roadway in the grounds of Dalriada School, for the governors. Documents from the office of R. Robinson and Sons, Riada House, Ballymoney. Deposit £3 3s. Tenders by Feb. 3.

***Bedford.**—New municipal offices for B.C. Apply by Feb. 10.

Belfast.—Following for City Council: (a) Covering of roofs at Annadale Grammar School, Annadale Embankment; (b) erection of brick shelter at Grove playing fields. Documents from the City Architect's Department, 40 Academy Street, Belfast, 1. Tenders by Feb. 14.

Bellaghy, Londonderry.—Following at Bellaghy Primary School: (a) Erection and completion of new school; (b) heating and plumbing installations; (c) electrical installation, for Very Rev. H. C. Browne. Documents from F. M. Corr and W. H. D. McCormick, chartered architects, 7 Ferryquay Street, Londonderry. Deposit £5 5s. Tenders by Feb. 2.

Beragh, Tyrone.—Construction and completion of U.S.C. drill hall, Beragh, for Ministry of Finance. Documents from Room 103, Law Courts Building, Belfast. Tenders by Feb. 2.

Bingham, Notts.—Painting the external wood and ironwork, etc., of 408 dwellings for R.D.C. The work will be in two contracts, one for 360 houses and six bungalows at Keyworth, and two for 42 houses at Car Colston, Scarrington, Whatton and Orston. Documents from J. R. Clifton, surveyor, Council Offices, Bingham, Nottingham. Deposit £2. Tenders by Feb. 6.

Blackburn, Lancs.—Conveniences at Corporation Park, for B.C. Applications to the Borough Engineer, Town Hall, Blackburn, by Jan. 28. Deposit £2 2s.

Breconshire.—Erection of a new kitchen at Crocker House Residential Home for Aged People, Hay-on-Wye, for C.C. Documents from the County Architect, Rhayd Offices, Brecon. Tenders by Jan. 31.

Bullingdon, Oxon.—Improvements and repairs to 37 Spring Lane, Littlemore, and 1-6 Shackels Cottages, Shillingford, for R.D.C. Applications to Engineer and Surveyor, 76 Banbury Road, Oxford, by Jan. 30.

***Cardiff.**—Reconstruction of Canton police station for City Council. Deposit £2 2s. Tenders by Feb. 13.

Chalfont St. Peter, Bucks.—Construction of Chalfont St. Peter community centre for Community Association, comprising foundations, flooring, heating, lighting, plumbing, drainage, decorations, site works, and to assist in the erection of the superstructure by a specialist firm. Applications to James H. Cox, architect, 12 Rickfords Hill, Aylesbury, by Feb. 1.

Chatteris, Cambs.—External repainting of 15 bungalows and 50 houses at Westbourne Road, for U.D.C. Documents from the Engineer and Surveyor, Grove House, Chatteris. Deposit £2 2s. Tenders by Mar. 3.

Cheshire.—Alterations and additions at Old Persons' Residence, Hallwood, Neston, Wirral, for C.C. (approximate cost £8,000). Applications to County Architect, County Hall, Chester, by Jan. 30. Deposit £2 2s., payable to C.C. and crossed Westminster Bank, Ltd. Tenders by Feb. 22.

Cheshire.—Erection of new dining rooms and kitchens at Helsby County Grammar School (approximate value £65,000), for C.C. Applications to Edgar Taberner, county architect, County Hall, Chester, by Feb. 7. Deposit £2 2s., payable to C.C. Tenders by Feb. 28.

Church Stretton, Salop.—Construction of a cattle grid and incidental works in Carding Mill Valley for U.D.C. Documents from the Clerk, Council Offices, Church Stretton. Tenders by Feb. 10.

Cookstown, Tyrone.—Erection of a pavilion at the Gunning Moore memorial park, Fair Hill Road, for U.D.C. Documents from A. Montgomery, clerk, Town Hall, Cookstown. Deposit £5. Tenders by Feb. 6.

Cookstown, Tyrone.—Erection of 16 garages at Monrush housing estate, for U.D.C. Documents from A. Montgomery, clerk, Town Hall, Burn Road, Cookstown. Deposit £3. Tenders by Feb. 6.

Devon.—Erection of two additional classrooms (Vic Hallam timber superstructure), cloakroom block, kitchen boiler-house, and fuel store at the Church of England Infants' School, Kingsteignton for C.C. Applications to the County Architect, 97 Heavitree Road, Exeter, by Jan. 28, enclosing cheque for £3 3s. (payable to Devon County Council).

Devon.—Erection of a clinic (Vic Hallam timber superstructure) at School Lane, Honiton, for C.C. Applications to the County Architect, 97 Heavitree Road, Exeter, by Jan. 28.

Down.—Building work in connection with the installation of a lift at St. Leonard's Rehabilitation Centre, Warrenpoint, for County Welfare Committee. Documents from the County Planning Officer, English Street, Downpatrick. Tenders by Feb. 6.

Dublin, Eire.—Alterations to the Central Bridewell, Chancery Street, Dublin, for Office of Public Works. Documents from the Secretary, Office of Public Works, 51 St. Stephen's Green, Dublin. Deposit £5. Tenders by Feb. 21.

Dundee, Angus.—Supply and delivery of mild steel framework for two refuse elevators, comprising welded steel troughs with wearing plates, joining flanges and necessary steel side frames, supports, etc., for B.C. There are seven sections each approximately 6ft. long, in each elevator. Offerers must take own measurements to ensure proper fit for running chain and jointing to existing hopper outlet, etc. Arrangements for facilities to measure may be made with Cleansing Superintendent, 28 East Dock Street, Dundee. Tenders by Feb. 18.

Durham.—Following for C.C.: Newton Aycliffe Hostel for Aged Persons—erection; Stockton Hostel for Aged Persons—erection; painting section—supply of tubular towers, up to 16ft. high, quick erection and minimum loose parts. Applications to County Architect, South Street, Durham, by Feb. 1.

East Barnet, Herts.—Contract 914, erection at Victoria recreation ground of a prefabricated concrete hut, approximately 60ft. by 24ft., for Civil Defence training centre, for U.D.C. The hut will be erected by nominated sub-contractors, but foundations, finishing works, including partitions and the like, drains, car park and footway works are to be undertaken by the main contractor. Documents from Engineer and Surveyor, Town Hall, Station Road, New Barnet, Herts. Deposit £2 2s. Tenders by Feb. 4.

***Eastbourne, Sussex.**—Erection of a library and offices for B.C. Apply by Feb. 28. Tenders by July 20.

Easthampstead, Berks.—Modernisation of 22 houses, Binfield Road, Bracknell (84-126 even numbers inclusive), for R.D.C. Documents from Engineer and Surveyor, Council Offices, Church Road, Bracknell, Berks. Deposit £2 2s. Tenders by Feb. 6.

East Suffolk.—Following for C.C.: (a) Reydon Modern School (near Southwold)—the erection of an assembly hall and a block of practical rooms totalling some 14,500 sq. ft. floor area, together with alterations to the existing building; (b) Beccles Grammar School—addition of three new science laboratories totalling some 4,500 sq. ft. floor area. Applications to the County Architect, County Hall, Ipswich, before Feb. 6. Tenders by Mar. 9.

Essex.—Following for C.C.: (1) Springfield County Secondary School—three- and single-storey building in steel frame and brick construction, estimated cost £115,000; (2) Hornchurch Suttons County Secondary School—kitchen and dining room, erection of kitchen and dining room in traditional construction and alterations to existing building, estimated cost £17,000; (3) Basildon Craylands County Secondary School—further education wing, in load bearing brickwork and steel stanchions, estimated cost £7,250; (4) Brightlingsea County Secondary School—horticultural unit and alterations, horticultural unit in traditional construction and alterations to laboratory, estimated cost £2,200; (5) sports pavilions—(a) Patching Hall Lane, Chelmsford, (b) Alderton Hall Lane, Loughton, in brick and timber traditional construction, estimated cost of each £7,250; (6) Hornchurch Suttons County Primary School—kitchen, in load bearing brickwork and flat timber roof, estimated cost £5,000; (7) Chigwell High View E.S.N. School—caretaker's house, in traditional construction, estimated cost £2,250; (8) Basildon Training Centre—in traditional construction, estimated cost £45,000; (9) Romford Ambulance Station—20-bay station in traditional construction, estimated cost £34,000. All contracts will be firm price with the exception of (1), where fluctuations apply. Separate applications to H. Conolly, county architect, by Jan. 28.

Essex.—Following for C.C.: (1) 1 Westwood Park, hostel for elderly persons, Little Horkestone, near Colchester, boiler house and provision of passenger lift, estimated cost £6,000; (2) Stisted Hall, hostel for elderly persons, near Braintree, provision of passenger lift, estimated cost £3,500. Separate applications to H. Conolly, county architect, County Hall, Chelmsford, by Jan. 28.

Eston, Yorks.—Erection of five meeting rooms with warden's quarters over, as follows for U.D.C.: (Contract 91) Passheld Crescent, South Bank; (94) Shakespeare Avenue, Grangetown; (95) Tennyson Avenue, Grangetown. Documents from N. C. Harrison, engineer and surveyor, 246 Normanby Road, South Bank, Middlesbrough. Deposit £1 1s. each. Tenders by Feb. 8.

Fareham, Hants.—Retiling, etc., of 17, 18, 19 and 20 School Road, Wickham, for U.D.C. Documents from Engineer and Surveyor, Westbury Manor, Fareham. Deposit £2. Tenders by Feb. 1.

Farnham, Surrey.—Erection of cemetery lodge at Farnham Cemetery, Alton Road, for U.D.C. Documents from H. W. Underdown, clerk of the Council, Council Offices, South Street, Farnham. Deposit £2 2s. Tenders by Jan. 13.

***Farnham, Surrey.**—Erection of garages for U.D.C. Deposit £2 2s. Tenders by Feb. 28.

***Golborne, Lancs.**—Interior plastering and exterior rendering of 104 bungalows at Hesketh Meadow estate, for U.D.C. Tenders by Feb. 17.

Haltemprice, Yorks.—Erection and completion of a bus shelter at The Square, Hessle, for U.D.C. Documents from the Engineer and Surveyor, Anlaby House, Anlaby. Deposit £1, payable to Treasurer. Tenders by Feb. 13.

Hampshire.—Sparsholt Farm Institute (near Winchester). Erection of new hostel block with ancillary accommodation for C.C., which comprises 20 study-bedrooms, two staff flats, changing room, boiler house, etc. Applications to Louis de Soissons, Peacock, Hodges, Robertson and Fraser, architects, 12 Baring Crescent, Exeter, by Feb. 13. Deposit £2 2s. cheque payable to C.C.

Hampshire.—Winchester All Saints (C.E.) (Cont) School extensions, Phase 2. Erection of an assembly hall, kitchen, stores, etc., in traditional construction and having an area of approximately 3,000 sq. ft. for C.C. Applications to the County Architect, The Castle, Winchester, by Jan. 31. Deposit £1 1s., cheque payable to County Treasurer.

***Holland.**—Erection of an old people's home for C.C. Tenders by Mar. 1.

Huddersfield, Yorks.—Erection of the following for B.C.: (a) Reinwood County Primary School; (b) Reinwood Home for Aged People; (c) extensions to King James's Grammar School. Documents from the Borough Architect's Office, High Street Buildings, Huddersfield. Deposit £2 2s. each. Tenders by Feb. 20 for (a), Feb. 13 for (b) and Mar. 21 for (c).

Keighley, Yorks.—Following for B.C.: (a) Proposed infants' school, Riddlesden; (b) enlargement of hall and additional classrooms, and toilets, Braithwaite E.S.N. School; (c) new kitchen, Highfield Secondary School. Applications to E. G. Felgate, borough architect, Borough Architect's Department, College Street, Keighley, by Feb. 3. Deposit £1 each.

Kidderminster, Worcs.—Following for B.C.: Erection of new conveniences built on to the housing offices, comprising the building of a lean-to 4½in. brick structure with w.c. and lavatory basin and drainage works. Documents from Borough Engineer and Surveyor, 110 Mill Street, Kidderminster. Deposit £2. Tenders by Feb. 6.

Lancashire.—Following for C.C.: Erection of single-storey craftrooms and store block in traditional construction, with felted roof, at Failsworth Boys' County Secondary School. Work includes adaptations to existing rooms to form new science laboratory and classroom and also includes drainage, services, and finishes. Applications to the County Architect, P.O. Box 26, County Hall, Preston, by Jan. 30.

Leeds.—Alterations to form adult physical training centre (traditional construction—all trades) at Jack Lane School, Hunslet, for City Council. Documents from Director of Works, Sweet Street, Leeds. Deposit £2, cheques payable to Corporation. Tenders by Feb. 20.

Leicester.—Erection of old people's home, Stokes Drive, for City Council. Documents from the City Architect's Office, 10 Loseby Lane, Leicester. Deposit £3. Tenders by Feb. 13.

Limavady, Londonderry.—Supply and erection of a steel external fire escape stair at Roe Valley District Hospital for the Northern Ireland Hospitals Authority. Documents from W. and M. Given, architects and engineers, 1 Waterside, Coleraine. Tenders by Feb. 6.

Lindsey.—Erection of Phase 1 of Woodhall Spa C.E. School of approximately 3,450 sq. ft. floor area for C.C. Documents from A. Ronald Clark, county architect, County Offices, Lincoln. Tenders by Feb. 9.

Lisburn, Antrim.—Alterations and additions at Ministry of Labour Local Office, Lisburn, for Ministry of Finance. Documents from Room 103, Law Courts Building, Belfast, I. Deposit £2. Plans also seen at Ministry of Labour Local Office, Lisburn. Tenders by Feb. 21.

Manchester.—Alterations to form school meals scullery at Christ the King R.C. School, Newton Heath, for City Council. Documents from City Architect, P.O. Box 488, Town Hall, Manchester. Tenders by Feb. 15.

***Manchester.**—Supply and erection of buildings for City Council. Tenders by Feb. 7.

***Margate, Kent.**—Erection of a cafe at West Bay for B.C. Tenders by Feb. 11.

Merionethshire.—Erection of a canteen-kitchen at Carrig Primary School, near Corwen, for C.C. Documents from County Architect, County Offices, Lombard Street, Dolgellau. Tenders by Feb. 13.

Montgomeryshire.—Conversion of the old kitchen at Llanbrynmair Primary School into staff and medical inspection room, for E.C. Documents from Director of Education, Education Offices, Newtown. Tenders by Feb. 6.

Moray and Nairn.—Additional accommodation at Millbank Primary School, Nairn, including the following trades, for Joint County Council: Builder and reinforced concrete work; carpenter and joiner work; slater and roughcast work; bituminous felt roofing; plumber work; plaster and floor tile work; electrical work; and glazier work. Written applications to the County Architect, County Buildings, Elgin, by Jan. 28.

Mossley, Lancs.—Redecoration of offices in the Borough Surveyor's department at the Town Hall, for B.C. Documents from N. H. Bowdler, borough surveyor, Town Hall, Mossley. Tenders by Feb. 3.

Musselburgh, Midlothian.—Construction of timber-hutted dressing room accommodation with brick lavatories and sprays, and provision of and laying of a fire-clay drain at St.

Ninian's Park, Moir Place, for B.C. Documents from the Burgh Surveyor, Municipal Offices, High Street, Musselburgh. Tenders by Feb. 20.

***Newcastle upon Tyne.**—Erection of welfare centre with two flats above at Strathearn Way, for City Council. Tenders by Feb. 21.

Newmarket, Cambs.—External painting of 467 houses in various Parishes, for R.D.C. Documents from the Surveyor, Council Offices, Park Lane, Newmarket. Tenders by Feb. 1.

Newtownabbey, Antrim.—Laying of mastic asphalt flooring in eight bungalows at Abbeyville Gardens for U.D.C. Documents from the Town Surveyor, Town Hall, Newtownabbey. Tenders by Feb. 6.

Nottingham.—Construction of club premises at Derby Road, for City Council. Documents from F. M. Little, city engineer and surveyor, Guildhall, Nottingham. Deposit £2. Tenders by Feb. 6.

Nottingham.—Construction of Claremont Primary School (phase one), Carrington, for City Council. Documents from F. M. Little, city engineer and surveyor, Guildhall, Nottingham. Deposit £2. Tenders by Feb. 8.

Peterborough.—External decorations to Town Hall, for City Council. Applications to City Engineer, Town Hall, Peterborough, by Jan. 25. Deposit £2. Tenders by Feb. 3.

Reading, Berks.—Conversion of 46 South Street into separate units of accommodation, for B.C. Documents from the Borough Architect, Town Hall, Reading. Tenders by Feb. 7.

Reeth, Yorks.—Public conveniences at Langthwaite, for R.D.C. Documents from the office of the Surveyor, Arkengarthdale Road, Reeth. Deposit £1. Tenders by Mar. 2.

Rochdale, Lancs.—External painting of 1,018 dwellings on various estates, for B.C. Documents from Borough Surveyor, Town Hall, Rochdale. Tenders by Feb. 6.

Rochester, Kent.—External repainting of the High Street elevation, repairs and repainting to gutters and downpipes. The Guildhall, for City Council. Documents from James A. Peel, city surveyor, 66 Maidstone Road, Rochester. Deposit £1 1s. Tenders by Feb. 3.

Rochford, Essex.—External painting and minor repairs at 350 dwellings in the following parishes, contract 295, for R.D.C.: Malting Villas, Stambridge Road and Weir Pond Road, Rochford—94; Tyne Avenue, Ormonde Avenue and Percy Cottis Road, Rochford—86; Pulpits Close, Ashingdon—36; 395-421 Ashingdon Road, Hawkwell—16; Cagefield Cottages, Stambridge—28; The Drive, Rochford—90. Documents from the Housing Officer, Council Offices, Rochford. Deposit £1. Tenders by Jan. 31.

Rowley Regis, Staffs.—Conversion and extension of the present cemetery chapel, Powke Lane, Blackheath, into a crematorium, for B.C. Applications to Harper and Sperring, architects, 179 High Street, Cradley Heath, Staffs. Deposit £5 5s. Tenders by Feb. 15.

St. Faith's and Aylsham, Norfolk.—Exterior painting of approximately 400 houses and 90 prefabs on various sites for R.D.C. Documents from the Housing Officer, Tudor Hall, Rose Lane, Norwich, Norfolk, Nor. 11B. Tenders by Feb. 13.

Salisbury and Wilton, Wilts.—Following for R.D.C.: (Contract 1) Builders' work in preparing flat concrete roofs for asphaltating at 1-22 Morgans Rise, Redlynch; (2) builders' work in re-laying of defective areas of paving with concrete at 1-22 Morgans Rise, Redlynch; (3) builders' work in preparing flat concrete roofs for asphaltating at 1-4 North View, Berwick St. James; (4) builders' work in preparing flat concrete roofs for asphaltating at 1-4 Groveline Cottages, Wishford; (5) asphaltating of flat roofs at the three sites mentioned above. Documents from Clerk to the Council, Council Offices, 26 Endless Street, Salisbury. Tenders by Feb. 6.

Seaham, Dur.—Repairs to the dwelling-houses 17 and 17a Alfred Street, for U.D.C. Documents from F. A. Alderson, clerk, Council Offices, Seaham. Tenders by Feb. 6.

Smethwick, Staffs.—Internal and external repairs and redecorations, and ancillary demolition works at the offices of the Children's Department, Parkholme, 280 High Street, for B.C. Written applications to the Borough Engineer and Surveyor, Council House, Smethwick. Deposit £2 2s., cheque payable to Borough Treasurer. Tenders by Feb. 13.

Southampton.—Erection of assembly hall, kitchen, etc., at St. Monica Primary School, for B.C. Written applications to Borough Architect, Civic Centre, Southampton, by Jan. 28. Tenders by Feb. 24.

Southend-on-Sea, Essex.—Alterations to form two new toilets in assembly hall and works incidental thereto at Prince Avenue School for B.C. Applications to the Borough Architect, 30 Alexandra Street, Southend-on-Sea. Tenders by Feb. 14.

South Shields, Dur.—Erection of a block of six shops and six flats, three three-bedroom

terrace houses, two two-bedroom bungalows and two garages, complete with drainage, pavings and other ancillary works for B.C. Documents from the Borough Engineer, Town Hall, South Shields. Deposit £2 2s. Tenders by Feb. 8.

Stamford, Lincs. — Erection of a ladies' reading room as a ground floor extension to the public library, and a museum at first floor level within the present general reading room, for B.C. Applications to Borough Surveyor and Engineer, Town Hall, Stamford, by Jan. 31.

Stourbridge, Worcs. — Erection of a block of 6 shops with masionnettes over at Lye Cross, for B.C. Documents from H. W. Morris, borough engineer and surveyor, Council House, Stourbridge. Deposit £3 3s. Tenders by Mar. 1.

Sunderland, Dur. — Hylton Red House Comprehensive School—phase I—for B.C. Erection of the first phase of this school comprising single-storey workshop block and swimming bath, two-storey house block, gymnasium and assembly hall and four-storey teaching block, together with caretaker's house and external works. Documents from Borough Architect, Grange House, Stockton Road, Sunderland. Deposit £2 2s. Tenders by Feb. 24.

Sunderland, Dur. — Erection of Town End Junior and Infants' School, for B.C., comprising a single-storey infants' department, single- and part two-storey junior department linked by a single-storey kitchen and heating chamber unit, together with caretaker's house and external works. Documents from Borough Architect, Grange House, Stockton Road, Sunderland. Deposit £2 2s. cheques payable to Corporation. Tenders by Feb. 24.

Swansea. — Erection of a science laboratory, library and cloakroom at Duvant County Secondary School, for B.C. Documents from J. Ieuan Levi, architect, Union Chambers, Union Street, Swansea. Deposit £2. Tenders by Feb. 6.

Thetford, Norfolk. — Improvement and repair to a block of four dwellings at School Road, Elmswell, for R.D.C. Documents from A. Owen, clerk, Council Offices, Elmswell, Bury St. Edmunds. Deposit £2 2s. Tenders by Jan. 31.

Thetford, Norfolk. — Erection of a factory on the London Road industrial estate, for B.C. Documents from the Architect, Garsett House, St. Andrew's Hall Plain, Norwich. Tenders by Feb. 20.

Tynemouth. — Works of alteration at the open-air swimming pool, for B.C. Documents from Borough Surveyor, 16 Northumberland Square, North Shields. Deposit £1 1s. Tenders by Feb. 4.

Tyrone. — Erection of new headquarters building in reinforced concrete construction, together with ancillary works, at Omagh, the approximate value being £145,000, for C.C. Applications to Robert Parke, secretary, County Council Office, Omagh.

Wakefield, Yorks. — Erection of junior and adult training centre at Lawfield Lane, for City Council. The centre is for the most part of single-storey traditional brick construction with a flat timber roof. The total floor area is 9,500 sq. ft. Documents from the City Engineer, Town Hall, Wakefield.

Warrenpoint, Down. — Erection of 10 garages at Clermont Gardens housing site for U.D.C. Documents from J. J. Cole, town surveyor, Council Offices, Town Hall, Warrenpoint. Tenders by Feb. 6.

Warwick. — Percy estate, central area—shops for B.C. Deposit £2 2s.

Wellingborough, Northants. — External painting of 88 houses at Kingsway for U.D.C. Documents from the Housing Manager, Council Offices, Swanspool, Wellingborough. Tenders by Feb. 13.

West Hartlepool, Dur. — Additional accommodation at Brierton Secondary Modern School for Boys, for B.C. Documents from the office of Bell and Spouse, architects, 10 Scarborough Street, West Hartlepool. Tenders by Feb. 15.

West Kesteven, Lincs. — Painting of 258 houses in various parishes for R.D.C. Documents from the Surveyor, West Kesteven Rural District Council, Sandon Close, Grantham. Tenders by Feb. 15.

West Riding. — Following for C.C.: (1) Adaptation of a classroom as a kitchen at Mirfield Hopton C.P. School; (2) formation of a school meals kitchen in the infant cloakroom and re-siting of cloakroom fittings at Adwick-le-Street Highfields Infants' School; (3) conversion of existing sanitary facilities to flush toilets, including provision of septic tank and filter bed at Paythorne County Primary School. Documents for contract (1) from the Divisional Architect, Flint Street, Huddersfield; (2) from the Divisional Architect, Planet Road, Adwick-le-Street, near Doncaster, and for (3) at the office of the Divisional Architect, Salisbury Buildings, Albert Street, Harrogate. Tenders by Feb. 20

West Riding. — Internal decorations (part) at the County Architect's Department, Bishopsgarth, Wakefield, for C.C. Applications to the Divisional Architect, Bishopsgarth, Westfield Road, Wakefield. Tenders by Feb. 13.

***West Sussex.** — Stage 1 extensions Bognor Regis William Fletcher Secondary Modern School (Job 5131) and new infants' school at Bognor Regis (job 6249), for C.C. Applications to Corporation. Tenders by Feb. 7.

Whitworth, Lancs. — External painting of 82 houses at Wallbank and Underbank, for U.D.C. Documents from Engineer and Surveyor, Council Offices, Whitworth. Tenders by Feb. 4.

Widnes, Lancs. — Erection of a Westmorland stone wall, approximately 2ft. high and 90ft. long at the crematorium, for B.C. Documents from the Borough Architect, Brendan House, Widnes Road, Widnes. Tenders by Feb. 7.

Wokingham, Berks. — Erection of 12 domestic storage sheds for houses in Drovers Way, Woodley; siteworks and erection of precast concrete garages, in blocks—6 at Palmer Close, Nine-Mile Ride, near Crowthorpe; 12 at Highfield Park, Wargrave; 19 at Drovers Way, Woodley (erection only). Documents from Surveyor, Council Offices, Shute End, Wokingham. Tenders by Feb. 1.

CLOTHING AND TEXTILES

Bolton, Lancs. — Supply of reefer jackets, corduroy trousers, boiler suits, bib and brace overalls and overall jackets for B.C. Documents from Cleansing Superintendent, Falcon Street Depot, Bolton. Tenders by Jan. 31.

Bradford, Yorks. — Supply of the following items of uniform and equipment for City Council: Fire helmets, fire tunics and trousers, leather fire boots, shoes, gabardine raincoats, shirts, collars, black ties, socks and pullovers. Documents from the Chief Fire Officer, Fire Brigade Headquarters, Nelson Street, Bradford. 5. Tenders by Feb. 6.

Bradford, Yorks. — Supply of bib and brace overalls, boilersuits, women's overalls, etc., for City Council. Documents from Henry Patten, town clerk, Town Hall, Bradford. 1. Tenders by Feb. 4.

Cheshire. — Supply of the following for C.C.: Firemen's uniforms, caps, footwear, leggings, overalls, shirts and ties, pullovers and socks. Documents from the Chief Fire Officer, Fire Service Department, Nelson Street, Bradford. 13. Tenders by Feb. 13.

Croydon, Surrey. — Supply of fire brigade uniform for B.C. Tenders by Mar. 4.

Denbighshire. — Supply during the period April 1, 1961, to March 31, 1962, of items of uniform clothing and equipment for members of the Fire Service, which should conform to specifications issued by the Home Office (Fire Service Department) dated June, 1951, and subsequently for the Denbighshire and Montgomeryshire Joint Fire Authority. Documents from W. E. Bufton, joint clerk, County House, Dee Banks, Chester. Tenders by Feb. 13.

***Northern Ireland.** — Supply of stores for Ministry of Home Affairs.

Rutherglen, Lanarks. — Supply of waterproof coats, bib and brace overalls, boiler suits, etc., for various departments for B.C. Documents from Robert F. Pollock, town clerk, Council Chambers, Rutherglen. Tenders by Feb. 9.

DEMOLITION

Buckley, Flints. — Demolition of Stanley Road Chapel, the removal of all materials, and, on vacation, the site to be left cleared of all materials and rubbish, for U.D.C. The building, which has been used for industrial purposes, can be inspected on any weekday on an appointment being made with the Surveyor, Council Chambers, Buckley. (Tel: Buckley 223.) Tenders in a plain sealed envelope to Steven E. Ligo, clerk of the Council, Council Chambers, Buckley, by noon Feb. 16.

East Retford, Notts. — Demolition of cottages property in the Parishes of Misson, Everton, North Leverton and Tuxford, and the demolition and clearance of R.A.F. hut bases, roads and air raid shelters at Elkesley, for R.D.C. Documents from the Surveyor, Amcott House, Grove Street, Retford. Tenders by Feb. 3.

Kidderminster, Worcs. — Demolition of Caldwell Hall, Castle Road, Kidderminster (excluding The Tower), for B.C. Documents from Borough Engineer and Surveyor, 110 Mill Street, Kidderminster. Deposit £2. Tenders by Feb. 6.

***Manchester.** — Demolition of foundations, etc., at Chorlton Camp, Hough End Fields, for City Council. Tenders by Feb. 24.

Monmouthshire. — Abersychan Grammar/Technical School demolition works for the removal of timber-hutted canteen on brick piers for C.C. Documents from S. Leyshon, county architect, Queen's Hill, Newport. Tenders by Feb. 3.

Neath, Glam. — Demolition and clearance of the following for R.D.C.: 223, 224 and 225

New Road, Skewen (Contract 1); 6, 7a and 8a Bethlehem Road, Skewen, 27, 28 and 29 Bethlehem Road, Skewen (Contract 2). Documents from J. T. Jones, engineer and surveyor, 18 Orchard Street, Neath. Deposit £1. Tenders by Jan. 31.

Oakham, Rutland. — Demolition and clearance of five cottages for U.D.C. Details from H. Tabberer, surveyor to the Council, Council Offices, Catmose Street, Oakham. Tenders by Jan. 31.

ELECTRICAL

Cardiff. — Electrical installation in the proposed police station at Llanishen, for City Council. Documents from the City Surveyor, City Hall, Cardiff. Deposit £2 2s., cheques payable to Corporation. Tenders by Feb. 8.

Cardiff. — Electrical installation at the County Primary School, Pen-y-Heol, Llanrumney, for City Council. Documents from the City Surveyor, City Hall, Cardiff. Deposit £2 2s., cheques payable to Corporation. Tenders by Feb. 8.

Hemel Hempstead, Herts. — Electrical installations for B.C.—(a) Wheelers Lane housing scheme—15 dwellings; (b) Wood Crescent East housing scheme—15 dwellings. Documents from A. H. Turner, borough engineer, High Street, Hemel Hempstead. Tenders by Feb. 14.

Keynsham, Som. — Electrical installation works in connection with the erection of 11 shops and one supermarket at Bath Hill, for U.D.C. Documents from the Architect, Council Offices, Keynsham. Deposit £2 2s. Tenders by Feb. 15.

***Kidderminster, Worcs.** — Internal electrical works for 30 dwellings, type A, contract 1, for B.C. Deposit £2. Tenders by Feb. 13.

Londonderry. — Supply and laying of 1,200 lin. yd. of three core 0.002 M.I.M.S./P.V.C. cable between a pumping station at Kilcalman and a reservoir at Lettermire, near Claudy, for R.D.C. Documents from Council Offices, Glendermott Road, Londonderry, or W. D. R. and R. T. Taggart, consulting engineers, 13 College Gardens, Belfast. 9. Deposit £3 3s. Tenders by Feb. 3.

Manchester. — Electrical installations on the following contracts for City Council: (282) Miles Platting, 326 dwellings and five shops; (346) Wythenshawe, 12 houses. Documents from the Director of Housing, Town Hall, Manchester. 2. Tenders by Jan. 30.

Manchester. — Electrical installations in the following for City Council: (Contract 326A) Miles Platting, 326 dwellings and five shops; (346) Wythenshawe, 12 houses. Documents from the Director of Housing, Town Hall, Manchester, 2. Tenders by Feb. 3.

***Manchester.** — Electrical installation of public conveniences for City Council. Tenders by Feb. 6.

Uttexeter, Staffs. — Electrical installation in 34 houses at Heath House estate, for U.D.C. Documents from Surveyor to Council, Council Offices, Old Bank House, 72 High Street, Uttoxeter. Tenders by Feb. 3.

FENCING

Dundee. — Supply of mild steel railing sections for City Council. Applications to the City Engineer, 21 City Square, Dundee. Tenders by Feb. 1.

Kingston-upon-Thames, Surrey. — Erection of tennis court chain link fencing and concrete post and chain link boundary fencing for B.C. Documents from Borough Surveyor, Guildhall, Kingston-upon-Thames. Deposit £2 2s. Tenders by Jan. 31.

Maidstone, Kent. — Chain link fencing for Maidstone and District Crematorium Joint Committee. Submit names by Feb. 4. Tenders by Mar. 6.

Ruislip-Northwood, Middx. — Supply and erection of 6ft. high by 9ft. lengths of close board fence at approximately 700 houses at three estates for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Northwood. Tenders by Feb. 6.

GAS AND WATER SUPPLY

Angus. — Craigol/Logic Pert water scheme extension to Wellhill for C.C., including the laying of approximately 569 lin. yd. 2in. diameter a.c. water main. Documents from the office of the County Engineer, County Buildings, Forfar. Tenders by Feb. 13.

Beeches, Suffolk. — Provision of trenching for laying, jointing and testing a total length of about one mile of 6in. 4in. and 3in. diameter asbestos-cement water mains in eight sections to connect to existing mains, together with other works incidental thereto (Contract 3) for B.C. Documents from A. P. I. Cotterell and Son, engineers, 54 Victoria Street, Westminster, London, S.W.1. Deposit £3 3s. Plans also seen at the Municipal Offices, Beccles, Suffolk. Tenders by Feb. 13.

Bucklow, Ches. — Agden and Millington water supply for R.D.C., including the pro-

vision and laying of some 2,400yd. of 4in. asbestos-cement pipes, together with appurtenant work. Applications to the Engineer and Surveyor, Dunham Mount, Dunham Road, Altringham. Deposit £3 3s. Tenders by Feb. 13.

Burnley, Lancs.—Sinking of a 24in. diameter borehole and the pumping tests connected therewith, at Dyke Meadow, Worsthorne, for B.C. Tenders are also invited for trial borings and pumping tests at Cockden Bridge and at Blackhouse, in the Thursden Valley. Documents from the Water Engineer, Water Department, 64 Yorkshire Street, Burnley. Deposit £3 3s. (cheques payable to Corporation). Tenders by Feb. 6.

Dorchester.—Reinforced concrete service reservoir for B.C. Apply by Jan. 31.

***Grangemouth, Stirlings.**—Construction of pumping station at Bowhouse for B.C.

***Haverfordwest, Pembs.**—Porthmawr water extension for R.D.C. Tenders by Feb. 17.

Kenilworth, War.—Supply of pipes, etc., for water mains for U.D.C., including: (a) 770 lin. yd. 3in. diameter spun-iron pipes; (b) 6,060 lin. yd. 4in. diameter spun-iron pipes; (c) 1,880 lin. yd. 6in. diameter spun-iron pipes; and (d) specials. Documents from the Surveyor, Council House, Kenilworth. Tenders by Feb. 4.

Kidwelly, Carms.—Taking-up and re-laying with 4in. diameter spun-iron pipes, approximately 1,230 lin. yd. of water mains, and the re-laying of approximately 700yd. water service connections for B.C. Documents from the Borough Offices, Bridge Street, Kidwelly. Deposit £2 2s. cheque. Tenders by Feb. 7.

***King's Lynn, Norfolk.**—Supply of pumps for B.C. Deposit £2 2s. Tenders by Feb. 16.

Lanarkshire.—Construction of a 500,000-gallon reinforced concrete water storage tank and access road at Carnuff, near Strathaven, for C.C. Documents from D. W. Buchan, county water engineer, 23 Beckford Street, Hamilton. Deposit £5. An assistant engineer will be at the site at 10.30 a.m. January 30, for the purpose of explaining the work to be done. Tenders by Feb. 20.

Londonderry.—Supply and erection of treatment plant (rapid gravity) for the waterworks at Caugh Hill, near Banagher, for City Council. The plant is to treat 5,000,000 gallons per day. Documents from the City Engineer and Surveyor, 5 Guildhall Street, Londonderry. Deposit £10, payable to Corporation. Tenders by Apr. 8.

Louth Lines.—Construction of a reinforced concrete reservoir of 1,000,000 gallons capacity at Horncastle Road (Contract 5), for B.C. Documents from John H. Haiste and Partners, consulting engineers, Belmont House, 20 Wood Lane, Headingley, Leeds. Deposit £3 3s. cheque. Tenders by Feb. 6.

***Merthyr Tydfil, Glam.**—Low level main duplication, Phase 1 (Contract 41), pipelaying for the Fechan Water Supply Board. Deposit £10. Tenders by Mar. 3.

Middlesbrough, Yorks.—Supply of steel pipes for conduit 55 (contract 123) for Tees Valley and Cleveland Water Board: Supply of the following lengths of bitumen-lined and sheathed steel pipes and specials—(a) 2,780yd. of 39in. diameter short-sleeved spigot and socket steel pipes for laying between Sadberge Reservoir and Long Newton Reservoir; (b) 127yd. of 33in. short-sleeved spigot and socket steel pipes for laying in the vicinity of Sadberge Reservoir; (c) 150yd. of 24in. diameter steel pipes with Johnson coupling joints for laying in the vicinity of Sadberge Reservoir, which is located some four miles east of Darlington on the A67 Darlington-Stockton Road. Applications in writing to T. S. R. Winter, engineer, New Works, etc., The Tees Valley and Cleveland Water Board, Corporation Road, Middlesbrough. Deposit £5 5s. Tenders by Feb. 8.

Newtown and Llanidloes, Monts.—Providing and laying of approximately 346 lin. yd. of 3in. diameter asbestos-cement pressure pipe at Cumbelan, Llanidloes, Monts., for R.D.C. Documents from Surveyor and Water Manager, Council Offices, Town Hall, Newtown. Tenders by Feb. 6.

***North Cornwall.**—Port Isaac water supply for Water Board. Deposit £3 3s. Tenders by Feb. 16.

Plympton St. Mary, Devon.—Construction of approximately 7,600yd. of 3in. and 4in. water mains in various parishes for R.D.C. Documents from the Engineer and Surveyor, Council Offices, Plympton. Deposit £2 2s. Tenders by Feb. 17.

Ross and Cromarty.—Construction of a small concrete dam, hydrostat house and service reservoir, and laying and jointing 12 miles of asbestos-cement pipes 1½ to 9in. diameter in the Carloway area of the Island of Lewis, for C.C. Documents from the County Water Engineer, Burn Place, Dingwall. Arrangements have been made for showing contractors over the site of the works on Jan. 31. Contractors wishing to take advantage

of these arrangements should notify the County Water Engineer. Tenders by Feb. 14.

Southwell, Notts.—Laying of water mains off Walesby Lane, Ollerton, for R.D.C. Works comprise 710yd. of 6in., 650yd. of 4in., and 150yd. of 3in. diameter water mains on a housing site to be developed. Documents from K. Dyson, engineer to the Council, Council Offices, Westgate, Southwell. Tenders by Feb. 6.

Staffordshire.—Tittesworth reservoir scheme. Generating plant (Contract 53) for Potteries Water Board, including the supply and erection of two sets of diesel-driven alternators each with a continuous rating of 500-kVA 415-V 3-phase 50-cyc. per second, 428 r.p.m., complete with switchgear, cabling and all ancillary works. Documents from C. V. Brown, engineer and manager and clerk to the Board, Albion Street, Hanley, Stoke-on-Trent. Deposit £5 5s cheque. Two separate tenders are required: (1) Tender with variations in wages and materials; and (2) tender on fixed-price basis. Tenders by Feb. 17.

West Ham, Essex.—Manufacture, delivery on site, erection and site testing of the following storm water pumping plant at Canning Town pumping station (Contract 2), for B.C.: Four 10,000 g.p.m. vertical type propeller or mixed flow pumps complete with piping and all ancillaries; two 4in. Henry Sykes Univac pumps, with pump and electric motor mounted on a common bedplate and complete with valves and piping. Documents from John Taylor and Sons, consulting engineers, Artillery House, Artillery Row, Westminster, S.W.1. Deposit £3, crossed cheque payable to the West Ham Corporation. Documents available for dispatch on or about January 25, 1961, and prospective tenderers are requested to make their applications prior to that date. Tenders by March 6.

HARBOURS, PIERS AND SEA DEFENCE WORKS

***Coleraine, Londonderry.**—Removal of rubble from channel for Harbour Commissioners. Deposit £5 5s.

***Margate, Kent.**—New sea wall and promenade at Birchington for B.C. Tenders by Feb. 25.

Scarborough, Yorks.—Construction of approximately 400 lin. yd. of concrete sea wall and promenade, together with 330 lin. yd. of a 30ft. access road and the filling of the reclaimed area and incidental works for B.C. The successful contractor will be expected to start work on the site during the week commencing April 4, 1961. Documents from V. Forshaw, borough engineer and surveyor, Town Hall, Scarborough. Deposit £5 5s. Tenders by Feb. 14.

HEATING AND VENTILATING

Hull.—Low pressure hot water heating and domestic hot water supply installation, Adelaide County Primary School for City Council. Documents from City Architect, Guildhall, Hull. Deposit £2, payable to City Treasurer. Tenders by Feb. 1.

Kingston-upon-Thames, Surrey.—Norbiton estate improvements (stage 1) for B.C. The work includes the installation of hot and cold plumbing services, provision of certain sanitary fittings, fireplace surrounds and appliances, and new electricity circuits to a maximum of 260 occupied dwellings. Applications to Borough Surveyor, Guildhall, Kingston-upon-Thames, by Feb. 3.

Liverpool.—Supplying and fixing new heating boilers at Childwall Valley High School for Girls and Queen Mary High School for Girls for City Council. Documents from the Engineer and Surveyor, Municipal Buildings, Liverpool, 2. Tenders by Feb. 2.

Manchester.—Following for City Council: (a) Cold water, gas and hot water installations; (b) water pressurisation installation at the Central Technical College, Manchester, 15. Documents from the City Architect, P.O. Box 488, Town Hall, Manchester. Tenders by Feb. 8.

Strabane, Tyrone.—Reconstruction of Council offices, as follows, for R.D.C.: (a) heating and plumbing services; (b) electrical services. Documents from the offices of W. and M. Given, consulting engineers 3 Richmond Street, Londonderry. Deposit £3 3s. Tenders by Feb. 6.

HOUSING SCHEMES

Belfast.—Erection of (a) 56 terrace houses at Hogarth Street and (b) five garages at Ballysillan Crescent, for City Council. Documents from the City Architect's Department (Housing Section), 97 Townsend Street, Belfast, 13. Deposit £5 for (a) and £3 for (b) (cheques payable to Corporation). Tenders by Feb. 7.

Chesham, Bucks.—Erection of one block of 12 flats in three storeys, together with garages,

on land at the junction of Great Hivings and Mount Nugent for U.D.C. Applications to E. S. North, Norfolk House, Station Road, Chesham, by Jan. 30. Deposit £2 2s. Tenders by Feb. 21.

Chesterton, Cambs.—Erection of 18 dwellings and the laying of sewers at Little Shelford, for R.D.C. Documents from the office of the Architect, County Hall, Hobson Street, Cambridge. Deposit £2 2s. (cheques payable to R.D.C.). Tenders by Feb. 13.

***Croydon, Surrey.**—Forty-eight dwelling units at Ely/Holmesdale Road site, for B.C. Tenders by Feb. 28.

Cupar, Fifes.—Following for B.C.: Erection at the Kirkgate entrance to Orchardgate, Cupar, of three three-apartment houses contained in a block of two-storey cottages and two two-apartment houses in a block of single-storey cottages, and at Upper Dalgairn, Cupar, and two three-apartment houses contained in a block of two-storey cottages. Builderwork, including demolition of three existing houses, carpenter and joiner, plumber, roof tiler and roughcast, plaster and cement, glazier, painter, ironmongery, electrical, grates and fencing works. Documents from A. D. Haxton and Watson, Leven.

Droxford, Hants.—Following at The Gardens, West Street, Hambledon, for R.D.C.: Erection of two blocks of three and one block of four old people's bungalows and the construction of ancillary site works comprising approximately 320 super. yd. of roadway, 250 super. yd. of footpaths, 200ft. run of drains, grass verges and sewage disposal plant. Documents from the Engineer and Surveyor, Northbrook House, Bishop's Waltham, Southampton. Deposit £2 2s. Tenders by Feb. 20.

***Enfield, Middx.**—Twenty-four flats, 26 houses and 50 garages at Hoe Lane for B.C. Apply by first post Feb. 7. Deposit £2 2s. Tenders by Mar. 6.

Farnham, Surrey.—Construction of one pair of three-bedroom houses at Baldreys for U.D.C. Documents from the office of Gilbert and Hobson, architects, 69a Castle Street, Farnham. Deposit £2. Tenders by Feb. 24.

Galston, Ayr.—Proposed redevelopment of area at Titchfield Street, 32 houses, for B.C. Applications to the Town Clerk, Council Chambers, Galston, by Jan. 30.

Goole, Yorks.—Erection of 20 houses and eight bungalows at Rawcliffe Bridge, for R.D.C. Documents from the Surveyor, Rural District Council of Goole, 149 Boothferry Road, Goole. Deposit £2 2s. Tenders by Feb. 28.

Hiton, Devon.—Erection of 32 three-bedroom, Unity houses and site works at Sidmouth Road for B.C. Documents from H. V. Custance, town clerk, Municipal Offices, New Street, Honiton. Deposit £3 3s. Tenders by March 1.

Kidderminster, Worcs.—Erection of eight bungalows at Stone for R.D.C. Documents from A. S. Northover engineer and surveyor, Council Offices, Land Oak House, Kidderminster. Deposit £2 2s. Tenders by Feb. 20.

Llanfyllin, Monts.—Erection of a block of flats and maisonettes, stores and garages, and a pair of bungalows at Carreglofa housing site, Llanymynech, for R.D.C. The work comprises the preparation of the site, site works, drainage, services, and the building of a three-storey block of six old people's flats on the ground floor and nine maisonettes over, stores and garages, and a pair of two-bedroom semi-detached bungalows. Documents from D. Mervyn Edwards and Moreton, architects, 5 Lower Brook Street, Oswestry. Deposit £3 3s. (cheques payable to R.D.C.). Tenders by Feb. 14.

Lostwithiel, Corn.—Two traditional houses at Cott Road Lostwithiel, for Fowey River Joint Water Board Committee. Documents from H. G. King, engineer and surveyor, Municipal Offices, St. Austell. Deposit £2 2s. Tenders by Feb. 28.

Maldon, Essex.—Erection of the following for R.D.C.: (a) Block of eight flats at Tolleshunt D'Arcy; (b) two blocks of four flats at Goldhanger; (c) conversion of pumping station into two bungalows, Tollesbury. Documents from the Engineer and Surveyor, Wantz Road, Maldon. Deposit £2 2s. Tenders by Feb. 6.

Morecambe and Heysham, Lancs.—Erection of eight one-bedroom flats in four blocks of two at Branksome Drive estate for B.C. Documents from the office of the Borough Engineer and Surveyor, Council Offices, Morecambe and Heysham. Deposit £2. Tenders by Feb. 15.

Newtown and Llanidloes, Monts.—Erection of houses on any or all of the following sites for R.D.C.: Bettws—four houses; Carno—six; Kerry—six; Caersws—12; Manafon—two. Applications to J. Brian Cooper, architect, 38 Highfield Road, Birmingham, 15, before Feb. 4. Deposit £2 2s.

Norfolk. — Erection of a pair of police houses at King George V Avenue, King's Lynn, for C.C. Documents from the County Architect, 27 Thorpe Road, Norwich, Norfolk, NOR 01T. Plans also seen by appointment at 15 Nelson Street, King's Lynn. Tenders by Feb. 15.

Northfleet, Kent. — Construction of 20 flats (traditional brick construction) in Burch Road for U.D.C. The conditions of contract will be those of the R.I.B.A. (except clause 25A, fluctuations), which can be seen at the Town Hall, Northfleet, at any time during normal office hours. Documents from the Engineer and Surveyor, Town Hall, Northfleet. Deposit £2 2s. Tenders by Feb. 13.

Portsmouth. — Erection of (a) 12 flats, Lake Road; (b) 50 houses, Clacton and Halstead Roads, Wymering for City Council. Applications to the City Architect, 1 Western Parade, Portsmouth, by Jan. 30. Deposit £1 each.

***Rawtenstall, Lancs.** — Block of eight flats at Burnley Road East, for B.C. Deposit £2 2s. Tenders by Feb. 18.

Rutherglen, Lanarks. — Erection of three blocks of two-storey flats comprising 24 two-apartment houses for elderly couples at Fernhill, for B.C. Applications to J. C. Russell, burgh surveyor, Town Hall Buildings, Rutherglen, Feb. 4.

St. Asaph, Flints. — Six houses and three bungalows at Dyffryn Teg, Rhualt, together with incidental works, for R.D.C. Applications to F. C. Roberts, Earl Chambers, Mold, by Jan. 28. Deposit £2 2s, by cheque, payable to Council.

***Swadlincote, Derby.** — Two blocks of flats for U.D.C. Deposit £2 2s. Tenders by Feb. 14.

Tandragee, Armagh. — Housing and sewerage scheme at Ballylisk for R.D.C. The work comprises the erection of 14 houses with ancillary site works and the construction of a sewerage scheme involving the laying of 700 lin. yd. of sewer and the construction of a sewage disposal works. Documents from J. G. McKinney, engineer and surveyor, Town Hall, Banbridge. Deposit £5 5s. Tenders by Feb. 13.

Uxbridge, Middx. — Erection of three blocks of one-bedroom flats, three storeys high, at Leybourne Road, Hillingdon (Contract 474), for B.C. Documents from Harold E. G. Stripp, borough surveyor, 263 High Street, Uxbridge. Deposit £2 2s. Tenders by Mar. 1.

***Wakefield, Yorks.** — Construction of road and sewer and 27 flats at Pinfold Lane for City Council. Apply by Feb. 6. Tenders by Mar. 8.

MATERIALS AND SUPPLIES

Aldridge, Staffs. — Following materials during the year ending March 31, 1962, for U.D.C.: Castings; concrete kerbs and flags; tar and bitumen compounds; tarmacadam; roadstone and chippings; sand; stoneware pipes; cements; concrete aggregates; coal and coke. Documents from the Engineer and Surveyor, The Poplars, 9 Leighwood Road, Aldridge, Staffs. Tenders by Feb. 6.

Altringham, Ches. — Supply of the following for the year ending March 31, 1962, for B.C.: Fine cold asphalt; bituminous and tarred granite; tar compound; tar spraying; granite chippings; basalt limestone chippings; cement; sanitary pipes (g.s. and concrete); bass brooms; motor spirit (commercial); concrete flags, edgings and kerbs; rebitriling of brushes on road sweeper; manhole covers and frames; gully grates and frames; graded slag for pitching; concrete lighting columns; plumbers' goods; grates, ironmongery, etc. Tenders, in a plain sealed envelope, endorsed "Tender for Materials," to E. Graham Thomas, town clerk, Town Hall, Altringham, by noon Jan. 30.

Acton, Middx. — Supplying during the year beginning April 1, 1961, the following, for B.C.: Artificial stone paving; brooms and brushes; granite and E.F. slag chippings. Documents from the Borough Engineer, Town Hall, Acton. Tenders by Feb. 17.

Batley, Yorks. — Supply of the following during the 12 months ending March 31, 1962, for B.C.: (1) Portland cement; (2) concrete aggregates; (3) concrete kerbs and flags; (4) stone kerbs; (5) quartzite, granite and slag chippings for tarspraying; (6) crushed limestone; (7) tar and bitumen (hot spraying); (8) bituminous cold emulsion; (9) tarmacadam; (10) cold asphalt; (11) hydrated lime; (12) salt-glazed ware pipes; (13) bricks; (14) salt; (15) petrol, oils and lubricants; (16) castings; (17) ironmongery; (18) dustbins and gas boilers; (19) chromium plated water taps; (20) hand brooms and rebitriling brooms for mechanical road sweeper; (21) ashes and hired haulage; (22) ready mixed concrete. Documents from the Borough Engineer, Hanover Street, Batley, and a stamped addressed foolscap envelope must be enclosed. Tenders by Feb. 11.

***Bedfordshire.** — Annual contracts for C.C. Tenders by Feb. 18.

Belfast. — Supply of (a) lime during the 12 months commencing April 1, 1961; (b) industrial mitts and gloves for City Council. Documents from the Gasworks, Ormeau Road, Belfast, 7. Tenders by Feb. 2.

***Benfleet, Essex.** — Supply of materials for U.D.C. Tenders by Feb. 9.

***Berwick-upon-Tweed, Northumb.** — Supply road materials for B.C. Tenders by Feb. 15.

Bournemouth, Hants. — Following for the year ending March 31, 1962, for B.C.: (1) Lorry hire; (2) stone chippings; (3) bituminous cold emulsions; (4) tarred and bituminous macadam; (5) tar for surface dressing; (6) coarse and fine binding gravel and frost grit, etc.; (7) supplying, laying and rolling asphalt; (8) washed gravel, concrete aggregate and sand; (9) cement, etc.; (10) oils, etc.; (11) precast concrete products; (12) refilling mechanical sweeper brushes; (13) manhole covers and frames, etc.; (14) concrete pipes, manholes and gullies. Documents from the Borough Engineer, Town Hall, Bournemouth. Tenders by Jan. 31.

Bridlington, Yorks. — Supply of the following during the 12 months commencing April 1, 1961, for B.C.: Macadam (slag) tar and bitumen coated; fine cold asphalt; chippings (stone, granite and slag); gravel; sand; concrete kerb, channel and flags; pitching and broken stone; tar (supply and application by pressure sprayer), cold bitumen emulsion, hot bitumen (supply and application by pressure sprayer), cement; manhole covers and frames; gully grates and frames; salt-glazed ware pipes; street gullies. Documents from the Borough Engineer and Surveyor, Town Hall, Bridlington. Tenders by Feb. 2.

Brierley Hill, Staffs. — Supply of the following for direct labour work for the year ending March 31, 1962, for U.D.C. Part 1—Highways Department: (1) Roadstone, slag and chippings; (2) tarmacadam and bituminous macadam; (3) tar and tar compounds and bituminous emulsion; (4) concrete kerbs and slabs; (5) concrete and stoneware pipes; (6) cast-iron manhole covers, gully grates and frames; (7) shovels and picks; (8) cement and sand; (9) coal; (10) hired transport; (11) labour, plant and tools for laying road materials, i.e., kerbs, pavings, footpaths, etc. (materials supplied by Council); (12) pre-mixed waterbound macadam; (13) ready mixed concrete. Part 2—Public Health Department: (1) Dustbins. Applications (with stamped addressed envelope) to the Engineer and Surveyor, Civic Buildings, Brierley Hill. Tenders by Feb. 22.

***Broadstairs and St. Peter's, Kent.** — Supply of materials for U.D.C. Tenders by Feb. 11.

Carmarthen. — Supply of the following during the financial year commencing April 1, 1961, for B.C.: (a) Petrol and paraffin; (b) lubricating oils; (c) sewer materials; (d) paint; (e) painters' sundries; (f) limestone chippings; (g) bitumen macadam; (h) tyres and tubes; (i) timber; (k) coal; (l) crushed stone; (m) sand and bricks; (n) tools and ironmongery; (o) plumbers' goods; (p) electrical goods; (q) concrete flags, kerbs and edging; (r) Portland cement; (s) brooms—scavenging; (t) disinfectant; (u) liquid soap and toilet paper. Documents from the Borough Engineer, Municipal Buildings, John Street, Carmarthen. Tenders by Feb. 6.

Chadderton, Lancs. — Supply and delivery of 1,000 2½ cu. ft. capacity galvanised mild steel dustbins, for U.D.C., made to B.S.792, height 22in. diameter tapering from 17in. to 15in., complete with matching metal lids or with rubber lids. The bins to be embossed C.U.D.C. in letters not less than 1½in. in size. Delivery to be made to the Council's Garage, Wellington Street, Chadderton, in lots as required, the delivery period to be stated in the tender. Tenders, in plain sealed envelopes, endorsed "Tender for Dustbins," to L. Scott, clerk to the Council, Town Hall, Chadderton, by Feb. 4.

Cheadle and Gatley, Ches. — Supply of the following for the year April 1, 1961, to March 31, 1962, for U.D.C.: Bituminous macadam; concrete flags, kerbs and channels; earthenware pipes and other earthenware materials; cement; broken stone; cold asphalt; washed river sand; scavenging brushes; rebitriling mechanical sweeper brushes; lanterns. Documents from the Engineer and Surveyor on receipt of a stamped addressed foolscap envelope. Tenders by Feb. 9.

Chester-le-Street, Dur. — Supply of the following for the year ending March 31, 1962, for R.D.C.: (1) Gravel, sand and whinstone; (2) bricks; (3) shovels, picks, pitch shafts, brooms, brushes and buckets; (4) ranges, baths, lavatory and w.c. basins, hardware, sundries, etc.; (5) glazed earthenware—sanitary pipes, junctions and bends, etc.; (6) Portland cements; (7) manhole covers and frames, step irons and inspection chamber covers; (8) concrete pipes and bends; (9) disinfectants; (10) tyres and tubes; (11) lubricating oil, greases and motor fuel; (12) paints, paint brushes, linseed oils, white spirit and glass; (13) batteries and sparking

plugs; (14) electrical supplies; (15) dustbins and lids. Applications to either W. Hughes, surveyor, Union Offices, Chester-le-Street, or F. Bowman, architect, Estate Office, Durham Road, Birtley, upon receipt of a stamped addressed foolscap envelope. Tenders by Feb. 10.

City of Ely, Camb. — Supply of the following during the financial year ending March 31, 1962, for U.D.C.: Tarmacadam and bituminous macadam; fine cold asphalt; pre-coated grit; bitumen for surface dressing; bituminous emulsion; granite for surface dressing; ballast and sand; cement and lime; concrete kerb and slabs; salt for snow clearing; petrol; toilet rolls. Documents from the Engineer and Surveyor, Urban Council Offices, Lynn Road, Ely, upon receipt of a stamped and addressed envelope. Tenders by Feb. 4.

Clayton-le-Moors, Lancs. — Supply of the following materials, etc., which may be required during the year ending March 31, 1962, for U.D.C.: Concrete flags and concrete kerbs, etc.; granite and limestone chippings; tarred granite, limestone and slag; tarspraying compounds; filled pitch. Documents from the Surveyor, Council Offices, Clayton-le-Moors. Tenders by Feb. 9.

Colne Valley, Yorks. — Supply of the following during the 12 months commencing April 1, 1961, for U.D.C.: (1) Cement; (2) prepared tar for surface dressing (bulk and in barrels); (3) bitumen for surface dressing (bulk and in barrels); (4) bituminous cold emulsion (in barrels only); (5) tarmacadam to B.S.S. specification; (6) tarmacadam to W.R.C.C. specification; (7) bitumen macadam, cold asphalt and sealing grit to B.S.S. specification; (8) bitumen macadam, cold asphalt and sealing grit to W.R.C.C. specification; (9) chippings and dust; (10) broken stone and pitching; (11) sand and gravel; (12) stone kerbs, paving slabs and edgings; (13) concrete kerbs, channel blocks and paving slabs; (14) salt glazed ware pipes and specials; (15) porous concrete pipes; (16) salt glazed ware gullies; (17) cast-iron gullies, grates and manhole covers. Documents from the Surveyor, Town Hall, Cross Street, Slaithwaite, Huddersfield, on receipt of a stamped addressed envelope. Tenders by Mar. 3.

Consett, Dur. — Supply of the following for the 12 months ending March 31, 1962, for U.D.C.: Dry roadstone, etc.; tarred and bituminous slag; cold bitumen emulsion; precast kerbs and concrete flags; salt for roads; road gullies and manhole covers and frames; electric lamps for street lighting; lubricating oils, greases and motor fuels; rubber tyres, remoulds and retreads; rebitriling of road sweeper brushes; shovels, picks, brooms, barrows, dustbins, etc.; salt glazed earthenware pipes and fittings; overalls. Applications to the Surveyor's Department, Council Offices, Medomsley Road, Consett. Tenders by Feb. 4.

Cowes, I. of W. — Supply and delivery of the following for a period of 12 months from April 1, 1961, for U.D.C.: (1) Tarred and bituminous macadam, cold asphalt, tar and bituminous cold emulsion; (2) granite, limestone chippings, concrete aggregate, sand, ashes, and hardcore; (3) hire of motor lorries; (4) tools, dustbins, washed cleaning rags; (5) lubricating oils; (6) stoneware pipes and gully pots, concrete flags, kerbs and pipes. Documents from the Surveyor, Northwood House, Cowes, Isle of Wight. Tenders by Feb. 6.

Cornwall. — Supply of following equipment and materials during the purchasing year commencing May 1, 1961, for River Board: Fuel oil and motor spirit, lubricating oil and greases, protective coats, rubber boots, small tools (picks, shovels, etc., local supplier to be nominated). Documents from the Engineer, Cornwall River Board, Western Road, Launceston. Tenders by Feb. 17.

***Coseley, Staffs.** — Supply of materials for U.D.C. Tenders by Feb. 13.

Crompton, Lancs. — Supply of the following for the year ending March 31, 1962, for U.D.C.: (1) Salt; (2) broken stone; (3) concrete flags, kerb and edging; (4) sand; (5) stoneware pipes and fittings; (6) dustbins; (7) tar and bituminous macadam; (8) cold emulsion; (9) coke; (10) Portland cement; (11) cold asphalt; (12) iron castings; (13) electric lamps; (14) grade "A" ground lime; (15) petrol and diesel (derv) oil. Documents from the Engineer and Surveyor, Town Hall, Shaw, near Oldham. Tenders by Feb. 15.

Caterham and Warlingham, Surrey. — Supply of the following during the 12 months beginning April 1, 1961, and ending March 31, 1962, for U.D.C.: (1) Tar or bituminous roadstone; (2) cold asphalt; (3) granite chippings; (4) tarred road dressing; (5) sand, ballast, etc.; (6) cement; (7) concrete kerbing; (8) concrete precast flags; (9) paints; (10) rebitriling sweeper brushes; (11) dustbins; (12) alloy refuse skips; (13) protective clothing. Documents from the Engineer and Surveyor, Council Offices, Caterham, on receipt of S.A.E. Tenders by Feb. 6.

Church, Lancs.—Supply of the following for U.D.C.: (a) Precast concrete flags; (b) precast concrete edging and kerbs; (c) glazed earthenware pipes, etc.; (d) screened chippings; (e) tarmacadam and bituminous macadam; (f) broken stone; (g) sand; (h) cement; (i) bitumen road emulsion; (j) patching of disturbed rolled asphalt surfaces. Documents from A. Smith, clerk of the Council, Council Offices, Church, Tenders by Feb. 20.

***Durham.**—Supply of school books for C.C. Tenders by Feb. 13.

Durham.—Following for the 12 months commencing April 1, 1961, for County Water Board: (1) Underground fire hydrants; (2) standard spun-iron socket and spigot pipes; (3) cast-iron special castings for asbestos-cement pipes; (4) standard cast-iron special castings; (5) 3in. internal diameter hydrant lengthening pieces; (6) cast-iron surface boxes; (7) 3in. to 18in. cast-iron sluice valves; (8) sulphate of alumina; (9) asbestos-cement pressure pipes; (10) precast reinforced concrete chambers and indicator posts; (11) valve indicator plates and figures; (12) underpressure branch connections; (13) leadless collars; (14) polythene pipe; (15) sulphuric acid; (16) salt (sodium chloride); (17) uniform clothing. Documents from C. Gibson, clerk to the board, 43 Old Elvet, Durham. Tenders by Feb. 13.

***Eastbourne, Sussex.**—Annual tenders for B.C. Tenders by Feb. 11.

Enniskillen, Fermanagh.—Supplying for the 12 months ending March 31, 1962, of the following for B.C.: 10,000 gallons more or less of tar all in accordance with British Standard 76-1943, type A, viscosity 34 deg. centigrade, at a fixed price per gallon delivered free to the Council's Yard, Frith's Alley, Enniskillen. All tar to be delivered in heavy returnable or non-returnable 40-gallon steel drums. The contractor to be responsible for payment of carriage on empty drums, but the Council will pay for any damaged or non-return of drums. Average lot ordered—2,000 gallons. The names of two solvent sureties willing to enter into a bond for the due performance of the above-mentioned contract must be submitted with each tender. Sealed tenders, endorsed on the outside "Tender for Tar" to Noble J. Connor, town clerk, Town Clerk's Office, Town Hall, Enniskillen, by 4 p.m., Feb. 21.

Farnham, Surrey.—Supply of the following during the financial year ending March 31, 1962, for U.D.C.: (1) Tarmacadam, bituminous macadam and fine asphalt; (2) heating and planing road surface; (3) surface dressing of roads and footpaths; (4) plastic white lines, etc.; (5) resurfacing works by machine; (6) concrete pipes, etc.; (7) concrete kerbs and slabs; (8) oils and greases. Documents from Geoffrey Poole, engineer and surveyor, Council Offices Annex, South Street, Farnham. Tenders by Feb. 15.

Golborne, Lancs.—Supply of the following materials for U.D.C.: Coated limestone macadam; coated slag macadam; cold asphalt; concrete flags and kerbs; drainpipes and surface dressing of roads. Documents from J. B. Hoyle, engineer and surveyor, Council Offices, Lowton, near Warrington. Tenders by Feb. 20.

Great Yarmouth, Norfolk.—Supply of the following for a period of one year from April 1, 1961, for B.C.: (1) Electric cables; (2) granite chippings; (3) precast concrete paving flags; (4) road materials (supply and application), (a) bituminous emulsion, (b) bituminous macadam; (c) fine cold asphalt, (d) hot rolled asphalt. Documents from the Borough Engineer, Town Hall, Great Yarmouth. Tenders by Feb. 3.

Hereford.—Following materials for City Council: (1) Plant, tools, etc.; (2) concrete kerbs and channel; (3) concrete flags; (4) slag chippings; (5) granite chippings; (6) tarred limestone, asphaltic limestone; (7) tarred granite, asphaltic granite; (8) bricks; (9) cement; (10) petrol; (11) cold surface dressing compounds in drums; (12) industrial salt; (13) stoneware pipes; (14) iron castings; (15) local gravel; (16) fine cold asphalt; (17) brooms; (18) coal; (19) hot surface dressing emulsion applied by pressure tanker. Documents from F. Margerison, city surveyor, Town Hall, Hereford, for which a stamped addressed large envelope is required. Tenders by Feb. 10.

Heywood, Lancs.—Supply of the following for the year ending March 31, 1962, for B.C.: Granite chippings; limestone chippings; sets, flags and kerbs (local stone); broken stone; stoneware pipes, etc.; filled pitch; cement; iron castings; scavenger brooms; refills for machine brush; paint and varnish; paint brushes; concrete flags and kerbs; concrete clothes posts; coated macadam; surface dressing; petrol; timber; plumbing materials; ironmongery. Samples and specifications seen and documents from A. Middleton, borough engineer and surveyor, Municipal Buildings, Heywood, on receipt of addressed foolscap envelopes, on application by Feb. 1. Tenders by Feb. 4.

Houghton-le-Spring, Dur.—Supply and delivery of the following materials for the year commencing Apr. 1, 1961, for U.D.C.: (a) Building materials—for the erection of approximately 72 dwellings and for the general maintenance of 4,817 existing houses; (b) highways materials and plant hire. Applications to the Engineer and Surveyor, Scruton House, Newcastle Street, Houghton-le-Spring, before Jan. 30. Tenders by Feb. 24.

***Irlam, Lancs.**—Supply of materials for U.D.C. Tenders by Feb. 24.

***King's Lynn, Norfolk.**—Supply of materials for B.C. Tenders by Feb. 16.

Leeds.—Supply of hydrated lime to Knotsop sewage works, Leeds, 9, during the 12 months ending March 31, 1962, for City Council. Documents from City Engineer, Rooms 75, Civic Hall, Leeds, 1. Tenders by Feb. 10.

Lisburn, Antrim.—Ironmongery in connection with the new assembly hall/classroom block at the Wallace High School. Documents from R. Ferguson and S. McIlveen, architects, 15 College Gardens, Belfast. Deposit £2 2s. Tenders by Feb. 3.

Lisburn, Antrim.—Metal window manufacturers in connection with the new assembly hall/classroom block at the Wallace High School. Documents from R. Ferguson and S. McIlveen, architects, 15 College Gardens, Belfast. Deposit £2 2s. Tenders by Feb. 3.

Lisburn, Antrim.—Sanitary fittings in connection with the new assembly hall/classroom block at the Wallace High School. Documents from R. Ferguson and S. McIlveen, architects, 15 College Gardens, Belfast. Deposit £2 2s. Tenders by Feb. 3.

***Littleborough, Lancs.**—Supply of materials for U.D.C. Tenders by Feb. 11.

***London.**—Supply of stores for Trinity House. Tenders by Feb. 15.

***Lympstone, Hants.**—Supply of materials for B.C. Tenders by Mar. 6.

***Maesteg, Glam.**—Supply of materials for U.D.C. Tenders by Feb. 18.

***Merthyr Tydfil, Glam.**—Annual tenders for B.C. Tenders by Feb. 18.

Middlesbrough, Yorks.—Considerable quantity of miscellaneous locks, furniture and other builders' hardware for B.C. Documents from the Borough Engineer, Municipal Buildings, Middlesbrough. Tenders by Feb. 11.

Monmouthshire.—Supply of paint for the 12 months ending Mar. 31, 1962, for C.C. Documents from S. Leyshon, county architect, Queen's Hill, Newport. Tenders by Feb. 6.

Monmouthshire.—Supply of oil burning fuel for secondary schools in the administrative county during the year April 1, 1961, to March 31, 1962, for C.C. Documents from Vernon Lawrence, clerk of the Council, County Hall, Newport. Tenders by Feb. 9.

***Mossley, Lancs.**—Supply of road materials for B.C. Tenders by Feb. 20.

Newark-on-Trent, Notts.—Supply of the following for year ending March 31, 1962, for B.C.: (a) Sand and gravel; (c) tar and bituminous macadam; (d) precast concrete kerbs and flags. Documents from Borough Surveyor, Municipal Buildings, Newark-on-Trent. Tenders by Feb. 6.

Newport, I. of W.—Supply of the following for the year ending March 31, 1962, for B.C.: Tar and bitumen macadam gravel aggregate; tar and bitumen macadam gravel aggregate laid by Barber-Greene or similar machine; cold asphalt; cold asphalt laid by Barber-Greene or similar machine; tar/bitumen and bitumen hot spray; bitumen emulsion; granite chippings; concrete paving flags, concrete kerb, concrete edging kerb (granite aggregate); washed and graded gravel aggregate for concreting; shore sand and pit sand; road stone; chalk; gravel chippings, 1in. and 1in.; ready mixed concrete. Particulars from the Borough Engineer, 39 Quay Street, Newport, I. of W. Tenders by Jan. 31.

Northumberland.—Supply of the following during the year April 1, 1961, to March 31, 1962, for C.C. (1) Dry macadam; (2) tarmacadam and bitumen macadam; (3) refined tar, cutback bitumen and cold bitumen emulsion; (4) gravel chippings and sand; (5) spades, shovels, bass brooms, etc.; (6) Portland cement; (7) road roller hire; (8) supply and laying of plastic white line material; (9) lubricating oils and greases; (10) adhesion agents for surface dressing; (11) haulage of roadstone from Harecrag Quarry, Alnwick. Applications to the County Surveyor, Phoenix House, Queen Street, Newcastle upon Tyne, 1, envelopes to be endorsed "Application for Tender Forms." Tenders by Feb. 13.

Oldham, Lancs.—Supply of nails and screws, glass, and cement to the Oldham Corporation Works Department during the period April 1, 1961, to March 31, 1962, for B.C. Documents from Works Manager, Copsterhill Road, Oldham. Tenders by Feb. 6.

Poole, Dorset.—Supply of the following during period April 1, 1961, to March 31,

1962, for B.C.: (1) Tarmacadam and bituminous macadam; (2) asphalt bituminous macadam and fine cold asphalt; (3) road tar mixture and bituminous compound; (4) heating and planing road surfaces; (5) road stone and chippings; (6) concrete gravel, sand, etc.; (7) concrete paving slabs; (8) precast kerbing, channelling, concrete fencing posts, etc.; (9) concrete and stoneware pipes and fittings; (10) motor tyres, tubes and remoulds; (11) hire of road rollers and plant; (12) hire of motor lorries; (13) road traffic signs, etc.; (14) ironmongery, tools, cleaning goods, etc.; (15) brooms, brushes, etc.; (16) khaki drill waterproof clothing, overalls, rubber boots, gloves, etc.; (17) iron castings, manhole covers, etc.; (18) motor spirit, burning oil, etc.; (19) lubricating oils, etc.; (20) house coal and coke and firewood; (22) cement, etc.; (23) electric wiring supplies and accessories; (24) electric lamps; (25) batteries; (26) street lighting lanterns (electric); (26a) time switches; (28) electric water heaters; (29) gas mantles. Documents from Borough Engineer, Municipal Buildings, Poole, on receipt of S.A.E. Tenders by Feb. 15.

Prescot, Lancs.—Supplying the following plant and materials during the year ending March 31, 1962, for U.D.C. (1) Ashes; (2) cement; (3) petrol, fuel oil and gas oil; (4) paints; (5) precast concrete kerbs, channels and flags; (6) road surfacing materials; (7) sand and concrete aggregates; (8) salt-glazed ware pipes and fittings; (9) transport and rollers. Documents from the Engineer and Surveyor, Council Offices, Prescot. Tenders by Feb. 18.

***Ramsbottom, Lancs.**—Supply of materials for U.D.C. Tenders by Feb. 9.

Redditch, Worcs.—Supply and delivery of the following materials during the year April 1, 1961, to March 31, 1962, for U.D.C.: (1) Tarmacadam; (2) tarred limestone; (3) dry broken stone; (4) washed gravel; (5) concrete kerbs; (6) concrete flags. Documents from the Engineer and Surveyor, South Street, Redditch. Tenders by Feb. 17.

Roxburgh.—Supply of liquid bitumen, cold bituminous emulsions, hired haulage, petrol, diesel fuels, heating fuels and paraffin for the year to May 15, 1962, for C.C. Documents from the County Surveyor, Newton St. Boswells. Tenders by Feb. 15.

Royton, Lancs.—Supply of the following during the year commencing Apr. 1, 1961, for U.D.C.: (a) Sand; (b) salt-glazed ware pipes; (c) electric lamps; (d) precast hydraulic press concrete kerbs and channels (granite aggregate), and natural stone kerbs; (e) cast-iron manhole covers and frames, and cast-iron gully frames and grids; (f) coated and uncoated materials; (g) cold bituminous emulsions. Documents from Kenneth Halliwell, engineer and surveyor, Town Hall, Royton. Tenders by Feb. 13.

Rugby, War.—Haulage and supply of the following for the year ending March 31, 1962, for B.C.: Kerbs and flags; granite chippings; gravel; pitching; wet-mix; coated macadam; tar; bituminous emulsion; paints, dustbins and overall clothing. Applications to the Borough Surveyor's Office, Burford House, Church Walk, Rugby. If written application is made, a stamped addressed foolscap envelope must be supplied. Tenders by Feb. 11.

St. Helens, Lancs.—Following for B.C.: Supply of 3,000 2½ cu. ft. capacity mild steel tapered dustbins and lids (galvanised after manufacture), made to B.S.S. No. 792, or constructed to gauges of B.S.S. No. 792, but with stamped panel sides. Bins and lids are to be embossed with the letters "St.H.C.61." Tenders must include for fixing the bottom hoops to the bins by eight rivets. Delivery is to be made in loads of approximately 500, as required, during the financial year ending March 31, 1962, to Hardshaw Brook Central Depot, Warrington New Road, St. Helens. Tenders, in a sealed envelope endorsed "Tender for Dustbins and Lids," to the Town Clerk, Town Hall, St. Helens, by 10 a.m. on Feb. 7.

Seaham, Dur.—Supply of the following for the year ending March 31, 1962, for U.D.C.: (1) Whinstone chippings; (2) gravel; (3) sand; (4) concrete flags and kerbs; (5) stoneware pipes; (6) bituminous and tarred macadam; (7) cold asphalt; (8) cast-iron goods; (9) precast concrete gullies; (10) tar spraying; (11) dust bins; (12) petrol; (13) cement; (14) hired haulage; (15) tyres. Documents from the Surveyor, Cliff House, Seaham. Tenders by Feb. 6.

***Sheffield, Yorks.**—Supply of materials for City Council. Tenders by Feb. 3.

Stevenage, Herts.—Supply of the following items for the year commencing April 1, 1961, for U.D.C.: (a) Tarred granite; (b) gravel asphalt; (c) bitumen macadam; (d) cold emulsion; (e) coarse aggregate; (f) cold asphalt; (g) concrete paving flags; (h) concrete kerbs; (i) cement; (j) sand; and (k) coke. Documents from the Engineer and Surveyor, 19 Orchard Road, Stevenage. Tenders by Feb. 6.

Surrey.—Supply and delivery of approximately 1,500 cu. yd. lean-mix concrete (30 to 100 cu. yd. daily) to roadworks on Guildford-Leatherhead Road (A246), between East and West Horsley, for C.C. Documents from County Engineer, County Hall, Kingston-upon-Thames. Tenders by Feb. 4.

Swansea.—Supply of the following materials for a period of 12 months from April 1, 1961, for B.C.: (1) Concrete lined and unlined spun-iron pipes and cast-iron specials; (2) asbestos-cement pressure pipes and specials; (3) waterworks appliances, including valves, hydrants, etc.; (4) water meters; (5) concrete hydrant pits; (6) cast-iron stop tap boxes; (7) alumina. Documents from the Water Engineer and Manager, The Guildhall, Swansea. Tenders by Feb. 4.

***Turton, Lancs.**—Annual contracts for U.D.C. Tenders by Feb. 24.

Tyldesley, Lancs.—Following for a period of 12 months from April 1, 1961, for U.D.C.: (1) Tar bituminous and tared macadam; (2) concrete flags; (3) concrete kerbs; (4) cold bituminous emulsion; (5) cold asphalt; (6) cast-iron manhole covers and frames, and gully gratings and frames; (7) scavenging brushes; (8) grade 4 rock salt; (9) wet mix; (10) labour costs for paving; (11) petrol and diesel oil; (12) ready mixed concrete. Documents from the Engineer and Surveyor, P.O. Box 7, Town Hall, Tyldesley. Tenders by Feb. 15.

Tynemouth.—Supply of the following for the year ending March 31, 1962, for B.C.: British Portland cement; Whinstone, gravel and sand aggregates; tarmacadam, bitumen macadam and fine cold asphalt; road surfacing and reinstatement works in asphalt; concrete flags and kerbs; lime mortar; sanitary pipes; wash-leathers, nails and screws; paints; printing paper and linen; electric lamps and cable; lamp columns, lanterns and fittings; taking-up and laying flags and kerbs; housing electric accessories. Applications to the Borough surveyor, 16 Northumberland Square, North Shields. Tenders by Feb. 13.

Washington, Dur.—Supply of the following for the 12 months commencing April 1, 1961, for U.D.C.: Road materials, earthenware pipes, sand, gravel, petrol and diesel oil. Documents from the Surveyor, Council Chambers, Washington. Tenders by Mar. 6.

West Bridgford, Notts.—Supply of the following for the year ending March 31, 1962, for U.D.C.: (1) Road stone; (2) road dressings; (3) tarred macadam; (4) brushes; (5) kerbs, channels and paving slabs; (6) gravel and sand; (7) protective clothing. Applications to R. Dewsbury, engineer and surveyor, The Hall, West Bridgford, with S.A.E. Tenders by Feb. 8.

Wrexham, Denbighs.—Supply of 80 baths and 24 lavatory basins for B.C. Documents from the Borough Engineer and Surveyor, 31 Chester Street, Wrexham. Tenders by Feb. 11.

MISCELLANEOUS

***Norfolk.**—Aerial surveys for C.C. Deposit £5. Tenders by Feb. 20.

***Wales.**—Carriage of ash for Central Electricity Generating Board. Tenders by Feb. 6.

PLANT AND MECHANICAL TRANSPORT

Belfast.—Supply and delivery of the following for City Council: Petrol and diesel-engined commercial covered vans, diesel-engined trucks (one with lorry loader and one with hydraulic platform), and diesel-engined tractor motive unit with lorry loader. Documents (W.186) from the Electricity Department, East Bridge Street, Belfast, I. Tenders by Feb. 3.

***Bury, Lancs.**—Supply 15cwt. diesel dumper for B.C. Tenders by Feb. 4.

Frome, Som.—Supply of a motor lorry of 2-4 tons carrying capacity for U.D.C. The vehicle is to be fitted with side or end tipping gear and a wooden body with removable side-boards and hinged tailboard, and a steel-lined base. Painting and lettering of the vehicle to be carried out to the Council's requirements. Documents from C. G. P. Lewis, engineer and surveyor, North Parade, Frome. Tenders by Jan. 30.

Hampshire.—Supply and delivery of the following for C.C.: Twelve Morris 5cwt. pick-up trucks; five 15cwt. diesel vans; 19 3/4-ton diesel lorries (tippers); 10 12 cu. yd. diesel lorries (tippers); seven trailers for vibrating rollers; four 3/4-ton low-loading plant trailers; nine tractors (wheeled), with equipment; one tractor-operated single-tool compressor; three tractor-mounted two-tool compressors, with dozer equipment; five vibrating rammers; two high-speed trailer mixers; two portable pumps; three autoclysters; three 8/10-ton diesel rollers; six bulk gritter bodies for winter gritting; three surface dressing chipping spreaders; six snowploughs. Applications in writing to H. N. Jenner, county surveyor, The Castle, Winchester.

Lurgan, Armagh.—Supply and delivery to the Council store of a hand-guided vibratory roller, having a rolling width of approximately 28in., for B.C. Tenders and details of rollers

offered in plain sealed envelopes endorsed "Vibratory Roller," to W. G. Best, town clerk, Town Hall, Lurgan, by noon, Feb. 4.

***Plymouth.**—Supply of various vehicles for City Council. Tenders by Feb. 6.

Portsmouth.—Following for City Council: (a) Hire of plant to the City Engineer's Department; (b) hire of lorries to the Cleaning and Haulage Department. Both contracts will be for a period of 12 months commencing April 1, 1961. Applications to the Supplies Officer, Central Depot, Eastern Road, Portsmouth. Tenders by Feb. 6.

Taunton, Som.—Supply of a Bedford-Lacre S.A. type sweeper/collector on 4-ton model 14A chassis for B.C. Documents from the Borough Engineer, St. Paul's House, Taunton. Tenders by Dec. 6.

PLAYING FIELDS, PARKS, ETC.

***Altringham, Ches.**—Construction of playground for B.C. Tenders by Feb. 13.

***Middleton, Lancs.**—Supply of playground apparatus for B.C. Tenders by Feb. 3.

Neath, Glam.—Re-grading of the existing association football field and adjacent areas, for the formation of new association football and rugby football fields on the site, an area of approximately 5 1/2 acres, for B.C. The works include the ploughing, harrowing and re-seeding of the area, and the erection of new fences in conjunction with the realignment of existing fence lines. Documents from the office of the Borough Engineer, Gwyn Hall, Neath. Deposit £2 2s. Tenders by Feb. 3.

North Down.—Supply of static playground equipment for R.D.C. Documents from the Council Offices, 2 Church Street, Newtownards, Co. Down. Tenders by Jan. 31.

Pembroke, Shire.—Tenby New Grammar School, preparation and layout of playing fields, for C.C. Documents from the County Architect, County Offices, Haverfordwest. Deposit £2 2s., cheque payable to C.C. Tenders by Feb. 13.

Sunderland, Dur.—Provision of new playing field at Fulwell School for B.C. Documents from Borough Architect, Grange House, Stockton Road, Sunderland. Deposit £2 2s. Tenders by Feb. 3.

Sheffield, Yorks.—Second stage development of Parson Cross Park, including the construction of bowling greens, tennis courts, footpaths, etc., for City Council. Tenders are also invited for the surfacing of all-weather type tennis courts in various parks in the city. Applications to The Manager, Parks, Cemeteries and Allotments Department, 125 Norfolk Street, Sheffield, 1. Tenders by Feb. 7.

RIVER AND FLOOD PREVENTION WORKS

North Somerset.—Kingston Seymour dredging and improvement scheme for Drainage Board, which comprises approximately 5 miles of dredging work and associated works. Applications to A. E. W. Brown, clerk, North Somerset Drainage Board, School House, Kingston Seymour, Clevedon, Somerset, by first post Feb. 3.

***Southgate, Middx.**—Pymmes Brook improvement scheme for Lee Conservancy Catchment Board. Deposit £5. Tenders by Feb. 27.

ROADS, BRIDGES AND SITE WORKS

***Ashford, Kent.**—Road improvement, A.28, and estate layout siteworks, for U.D.C. Tenders by Feb. 14.

Basildon, Essex.—Road improvement works to be executed at the junction of Bull Road with Timberlog Lane, Vange, approximately 700yd. north of the junction with the London to Southend Road, A.13, for Development Corporation. The works comprise the breaking up and removal of approximately 2,500 sq. yd. of existing carriageways, excavation, preparation and laying a total of 7,500 sq. yd. of reinforced concrete and flexible carriageways, together with sewers and ancillary works. Documents from the Chief Engineer, Basildon Development Corporation, Gifford House, Basildon. Deposit £2 2s. Tenders by Feb. 6.

Basildon, Essex.—Road improvement works to be executed at the junction of Bull Road with Timberlog Lane, Vange, for Development Corporation, approximately 700 yd. north of the junction with the London to Southend Road, A.13. The works comprise the breaking up and removal of approximately 2,500 sq. yd. of existing carriageways, excavation, preparation and laying a total of 7,500 sq. yd. of reinforced concrete and flexible carriageways, together with sewers and ancillary works. Applications to the Chief Engineer, Basildon Development Corporation, Gifford House, Basildon, Essex. Deposit £2 2s. Tenders by Feb. 20.

***Bath.**—Making-up Forester Lane, Bathwick, for City Council. Deposit £2 2s. Tenders by Feb. 6.

***Bedfordshire.**—Improvement on trunk road A.6 for C.C. Deposit £2 2s. Tenders by Feb. 3.

***Bedworth, War.**—Black Horse Road carriageway and footway works for U.D.C. Deposit £2 2s. Tenders by Feb. 9.

Berkhamsted, Herts.—Making-up and tarmacadam paving of approximately 350yd. super accommodation Road at the housing estate, Stoneycroft, Aldbury, for R.D.C. Documents from C. Laidman, Council's surveyor, Boxwell House, 275 High Street, Berkhamsted, Herts. Tenders by Feb. 6.

Berkshire.—Providing concrete haunches and surfacing at Maiden Erlegh Drive, Earley, Reading, for C.C. The works involved in the contract are as follows: 675 lin. yd. of 12in. x 9in. in-situ concrete haunch; 70 tons of bituminous gravel in varying thicknesses on existing metalled surface; 1,580 sq. yd. cold asphalt surfacing, 1in. thick; together with excavation and appurtenant works. Documents from the office of the County Surveyor, Shire Hall, Reading. Deposit £2. Tenders by Feb. 6.

***Cambridgeshire.**—Reconstruction of cross-roads route A.11 (Contract 6020) for C.C. Tenders by Feb. 9.

***Chatham, Kent.**—Reshaping and resurfacing of roads for B.C. Deposit £2 2s. Tenders by Feb. 6.

Cheadle and Gatley, Cheshire.—Following for U.D.C.: (1) The reconstruction of St. Ann's Road, Head Green; (2) the improvement of East Avenue, Cheadle. Documents from the Engineer and Surveyor, Town Hall, Cheadle. Deposit £2 2s. each. Tenders by Feb. 9.

***Chesterfield, Derby.**—Roads and sewers at Drakehouse Lane housing site, for R.D.C. Deposit £2 2s. Tenders by Mar. 1.

Chesterfield, Derby.—Surfacing of garage sites in the parishes of Eckington and Killamarsh for R.D.C., comprising 4,000 sq. yd. of tarmacadam surfacing and approximately 400 lin. yd. of 6in. diameter pipes. Documents from J. B. Wikeley, engineer and surveyor, Council House, Saltergate, Chesterfield. Deposit £2 2s. Tenders by Feb. 13.

***Chigwell, Essex.**—Roadworks at Stradbroke Drive (third section) for U.D.C. Deposit £2 2s. Tenders by Feb. 15.

Cookstown, Tyrone.—Construction and completion of concrete bases for poultry houses, paved areas, etc., Loughry Agricultural College for Ministry of Finance. Documents from Room 103, Law Courts Building, Belfast, 1. Tenders by Feb. 6.

***Cuckfield, Suffolk.**—Construction of footways, etc., at Grange Road, for R.D.C. Deposit £2 2s. Tenders by Mar. 6.

***Ealing, Middx.**—Construction of two cul-de-sac for B.C. Deposit £5. Tenders by Feb. 3.

***East Suffolk.**—Surfacing Capel St. Mary trunk road, A.12, contract 39, for C.C.

***Enfield, Middx.**—Making-up Winnington Road and Stainton Road for B.C. Deposit £2. Tenders by Feb. 20.

***Enfield, Middx.**—Private street works at Crews Hill estate, stage 2, for B.C. Deposit £2. Tenders by Feb. 20.

Featherstone, Yorks.—Making of roads and laying of sewers, etc., at the Common Lane housing site, comprising approximately 1,200 lin. yd. of roads and sewers for U.D.C. Documents from Turner and Holland, architects, 4 King Street, Wakefield. Deposit £3 3s. Tenders by Feb. 7.

Galston, Ayr.—Proposed redevelopment of area at Titchfield Street, roads and sewers, for B.C. Applications to the Town Clerk, Council Chambers, Galston, by Jan. 30.

***Hale, Cheshire.**—Tarspraying for U.D.C. Tenders by Feb. 2.

Hereford.—Construction of approximately 400yd. of pitched macadam surfaced road with surface water sewers for abattoir service road, for City Council. Documents from City Surveyor, Town Hall, Hereford. Deposit £2 2s. Tenders by Feb. 6.

Hull.—Reconstruction of the backroad at the rear of 359-401 Willerby Road, 1-9 Springhead Avenue and 9-27 Mayland Avenue, comprising approximately 703 sq. yd. of concrete paving, together with drainage works, for City Council. Documents from the City Engineer, Guildhall, Hull. Deposit £2, payable to City Treasurer. Tenders by Feb. 15.

Hyde, Cheshire.—Supply and machine laying of approximately 14,500 sq. yd. of 1in. thick cold asphalt with precoated chippings, and approximately 350 tons of cold asphalt regulating course on district roads, for B.C. Documents from the Borough Engineer and Surveyor, Municipal Buildings, Greenfield Street, Hyde. Tenders by Feb. 6.

***Irlam, Lancs.**—Asphalt surfacing for U.D.C. Deposit £1 1s. Tenders by Feb. 10.

Isle of Wight.—Construction of an access road and incidental works at Freshwater for R.D.C. Documents from 30 Pyle Street, Newport. Deposit £2 2s. Tenders by Feb. 6.

***Kent.**—Surfacing for roads at Eynsford, for C.C. Deposit £2. Tenders by Feb. 17.

Lancashire.—Reclamation of Crickets Lane site at Ashton-under-Lyne for C.C. The work

includes: (1) the clearing of the site, including garages, buildings, footings and floor slabs and depositing on site; (2) the movement on site of about 8,600 cu. yd. of material, together with ancillary works; (3) the pumping of water from one pond and laying 50 lin. yd. of agricultural land drains. Documents from the County Planning Officer, East Cliff County Offices, Preston. Deposit £2 2s. Tenders by Feb. 4.

Lancashire.—Construction of roadworks in Beech Road (part), Aughton, in the rural district of West Lancashire, for C.C. Plans, etc., on view at 9 Fishergate Hill, Preston. Documents from the County Surveyor and Bridgemaster, P.O. Box 9, Preston. Deposit £2. Please quote reference 160/59 and make cheques payable to Lancashire County Council. Tenders by Feb. 3.

***Leatherhead, Surrey.**—Highway improvement works on A.246 for U.D.C. Tenders by Feb. 25.

Leeds.—Levelling and consolidating of the following sites, supplying red shale, spreading on sites and rolling, for City Council: Portland Way, Whinigate Road. Documents from City Engineer's Office, Room 75, Civic Hall, Leeds. 1. Tenders by Feb. 6.

Leeds.—Following for City Council: Kerbing, tarmacadam footpaths, tarmacadam and concrete surfaced carriageways, etc., in the following private streets—Monk Bridge Terrace (part); Oakwood Grove; Parkside Lane (part); Parkville Place; Parkville Road; and Primley Park View (part). Documents from the Highways Engineer, 155 Kirkstall Road, Leeds. 4. Deposit £1 1s. Tenders by Feb. 2.

Leicester.—Northern area development. Following for City Council: (Contract 1) Housing estate carriageways and sewers—(a) Site clearance, approximately 25 acres; (b) lean-mix concrete carriageways, approximately 42,500 sq. yd.; (c) reinforced concrete carriageways, approximately 12,000 sq. yd.; (d) 9in. to 36in. diameter sewers, approximately 13,500 lin. yd., together with manholes and other incidental works; (e) surface water outfall sewer, 15in. to 60in. diameter, approximately 1,200 lin. yd., together with manholes and incidental works. (2) Flood relief works—(a) Improvement to approximately $\frac{1}{4}$ mile of existing brook and the construction of 800yds. of new channel, together with approximately 1,000ft. of reinforced concrete culvert and 4,000ft. of 8ft. diameter pipe. Documents from John L. Beckett, city surveyor, Town Hall, Leicester. Deposit £2 2s. each. Tenders by Feb. 27 for (1) and Feb. 20 for (2).

Leicester.—Following for City Council: (Contract 1) Laying of bitumen macadam surfacing and foundation, together with drainage and other incidental works, on eight garage sites situated in various parts of the Eyres Monsell and Glen Parva estates (approximate area 10,000 sq. yd.); (2) laying of bitumen macadam surfacing, together with drainage and other incidental works, on 14 garage sites situated in various parts of the city (approximate area 40,000 sq. yd.). Documents from John L. Beckett, city surveyor, Town Hall, Leicester. Deposit £1 1s. Tenders by Feb. 6.

Leicestershire.—Reconstruction of Sheepy Bridge, route B.585, for C.C. Documents from the County Engineer and Surveyor, County Offices, Grey Friars, Leicester. Deposit £5. Tenders by Feb. 24.

***Leyland, Lancs.**—Hot rolled asphalt surfacing for U.D.C. Deposit £2 2s. Tenders by Feb. 8.

Lincoln.—Tentercroft Street car park: Construction of approximately 8,000 sq. yd. hardcore base car-parking area, with macadam surfacing footpaths, access road, and ancillary works for City Council. Documents from A. Adlington, city engineer and surveyor, Silver Street, Lincoln. Deposit £2 2s., cheques payable to Corporation. Tenders by Feb. 11.

Long Eaton, Derby.—Following for U.D.C.: Asphalt surfacing of part of Tamworth Road (A453), comprising the supply and laying of approximately 8,900 sq. yd. of 2in. hot rolled asphalt to B.S.S. 594, 1958, with burning off and ancillary works; street lighting of Wilsthorpe Road, Petersham Road, College Street and Main Street, comprising (a) the supply of 106 140-W and 10 60-W sodium discharge lanterns with auxiliary gear; (b) the supply and erection of 96 25ft. concrete columns and fitting lanterns to 10 existing steel columns and 10 existing 15ft. concrete columns. Documents from the Engineer and Surveyor, Town Hall, Long Eaton. Tenders by Feb. 5.

Maidstone, Kent.—Widening of Willington Street, stage 2, for B.C., from Cheshire Road to Northumberland Road, including approximately 3,200 sq. yd. of tarmacadam carriageway, 850 sq. yd. of footways, together with kerbing and surface water drainage. Documents from the office of the Borough Engineer, Palace Avenue, Maidstone. Tenders by Feb. 6.

***Manchester.**—Private street works for City Council. Tenders by Feb. 6.

Midlothian.—Reconstruction of approximately $\frac{1}{4}$ mile of road on route B.792 at Cleuch Brae, West Calder, for C.C. Documents from the office of the County Surveyor, 32, Palmerston Place, Edinburgh. Deposit £2. Tenders by Feb. 1.

Northern Ireland.—Resurfacing of carriageways in bituminous macadam at Whiteabbey and Greenisland Hospitals for Northern Ireland Hospitals Authority. Approximate areas: Whiteabbey Hospital, 1,500 sq. yd.; Greenisland Hospital, 650 sq. yd. Documents from Secretary, Newtownabbey Hospital Management Committee, Whiteabbey Hospital, Station Road, Newtownabbey, Co. Antrim. Tenders by Feb. 3.

Northern Ireland.—Construction of approximately 50 planted cylinder foundations for the second extension to Coolkeeragh Power Station, Londonderry, contract N.I.1608, for Electricity Board. Documents from Kennedy and Donkin, 64 Royal Exchange, Manchester, 2, or Sir Alexander Gibb and Partners, Queen Anne's Lodge, Westminster, London, S.W.1. Deposit £5 5s. Tenders by Feb. 6.

Northumberland.—Application only of road tar by mechanical pressure tank during the period May 1, 1961, to Aug. 31, 1961, for C.C. Documents from the County Surveyor, Phoenix House, Queen Street, Newcastle upon Tyne. 1. Tenders by Feb. 6.

Orpington, Kent.—Widening of Crofton Lane for U.D.C., with hardcore and tarmacadam construction for a length of approximately 633yd., the reshaping and surfacing of the carriageway with tarmacadam for a further length of approximately 133yd., and the construction of approximately 210yd. of 9in. surface water sewer. The works consist of bulk excavation, new carriageway and footpath construction, drainage works, and accommodation work to private property. Documents from L. W. Freeman, engineer and surveyor, Civic Offices, The Walnuts, High Street, Orpington. Deposit £2. Tenders by Feb. 11.

Perth and Kincross.—Stirling — Milnathort — Cupar — St. Andrews trunk road, Dollar — Milnathort section, route A.91. Improvement at Cowden Castle corners, for C.C. Works include reconstruction of approximately 650yd. of road to provide 24ft. wide carriageway with 9ft. verge on each side, one verge accommodating 6ft. wide footpath. Scheme includes about 13,500 cu. yd. of excavation, two large culverts, mass concrete retaining wall and miscellaneous other works. Documents from the office of County Surveyor, 57 Feus Road, Perth, whose representative will be at site on Feb. 7 at 11 a.m. to explain scheme. Deposit £5. Tenders by Feb. 24.

Pudsey, Yorks.—Making-up of Glenroy Close for B.C. Documents from the Borough Surveyor, Town Hall, Pudsey. Deposit £2 2s. Tenders by Feb. 1.

Reigate, Surrey.—Construction of bus draw-in, High Street, Redhill, 80 cu. yd. lean-mix concrete, 150 sq. yd. asphalt surfacing, 200 sq. yd. footpath and ancillary works, for B.C. Documents from Borough Surveyor, Town Hall, Reigate. Tenders by Feb. 4.

Ruislip-Northwood, Middx.—Queens Walk/The Fairway junction improvement for U.D.C., comprising approximately 100yd. kerbing, 75 sq. yd. concrete carriageway, 120 sq. yd. A.S. paving, verges and drainage works. Documents from the Engineer and Surveyor, Council Offices, Northwood. Deposit £2 2s. Tenders by Feb. 8.

St. Helens, Lancs.—Removal of waste lime for corporation waterworks. Tenders by Feb. 27.

Sheerness, Kent.—Housing scheme 7, West Minster, for U.D.C. Deposit £3 3s. Tenders by Feb. 7.

Shrewsbury, Salop.—Making-up and widening of Preston Street for B.C. Deposit £2 2s. Tenders by Feb. 27.

Smethwick, Staffs.—Various footpath, kerbing, channelling and miscellaneous works during the year ending Mar. 31, 1962, for B.C. Documents from the Borough Engineer and Surveyor, Council House, Smethwick. 40. Tenders by Feb. 3.

Somerset.—Repair of approximately 1,750yd. of road 12ft. wide on North Hill Minehead, for C.C. Documents from R. W. Dale, county planning officer, 41 Upper High Street, Taunton. Tenders by Feb. 17.

Southampton.—Private street works for B.C. Apply by Jan. 31.

Southborough, Kent.—Road materials for U.D.C. Tenders by Feb. 14.

Southgate, Middx.—Supply of granite chippings and contract surface dressing for B.C. Tenders by Feb. 7.

South Shields, Dur.—Reading Road development for B.C., including the construction of roads and sewers involving approximately 3,000 cu. yd. of earthworks, 450 lin. yd. of 6in. to 15in. diameter sewers, and 3,500 sq. yd. of concrete carriageway and ancillary works. Documents from the Borough Engi-

neer, Town Hall, South Shields. Deposit £5 5s. Tenders by Feb. 8.

Staffordshire.—Improvement and reconstruction of Bilbrook Back Lane, Codswall, for C.C. Deposit £5. Tenders by Feb. 23.

Stirlingshire.—Denny By-pass, from the Edinburgh-Glasgow Road, A.803, at Haggis to the Glasgow-Stirling trunk road, A.80, north of Dunipace, for C.C. Works include the construction of approximately 4.15 miles of dual two-lane trunk road and earthworks, and some ancillary works on a further .6 mile, including the diversion of side roads, the construction of 14 major bridges, four small bridges, pipe culverts and the diversion of water mains. Applications to James D. Kennedy, county clerk, County Offices, Viewforth, Stirling, by Jan. 28. Deposit £30. Plans seen from Jan. 30 at the offices of F. A. Macdonald and Partners, 11 Woodside Terrace, Glasgow, C.3, and at the office of the County Road Surveyor, Causewayhead School, By Stirling.

Stockton-on-Tees, Dur.—Cleansing of lake, Ropner Park, for B.C., comprising the removal and disposal of approximately 5,730 cu. yd. of silt and miscellaneous rubbish. Documents from the Borough Engineer, Victoria Buildings, High Street, Stockton-on-Tees. Deposit £2 2s. Tenders by Feb. 3.

Swinton and Pendlebury, Lancs.—Private street improvement, comprising draining, metalling, flagging, etc. Total length approximately 1,000 lin. yd. in 10 streets, for B.C. Documents from Charles J. Lomax and Son, chartered civil engineers, 68 Barton Arcade, Deansgate, Manchester, 3. Tenders by Feb. 10.

Surrey.—Following for C.C.: (1) London-Brighton trunk road, A.23, section from Cross Oak Lane, Salfords, northwards for 430yd.—widens carriageway from 30ft. to 33ft. in rolled lean concrete (800 sq. yd.), reshape in gravel asphalt and surface with 3in. single-course bituminous granite or slag macadam (4,800 sq. yd.), rekerb (860 lin. yd.), and resurface footway (1,600 sq. yd.); (2) Charlwood-Lowfield Heath Road, C.X.83, section from Charlwood Village to Westfield Place—haunch and widen to 18ft. in lean mix concrete (1,200 sq. yd.), and reshape with 1½in. single-course gravel tarmacadam (240 tons). Documents from County Engineer, County Hall, Kingston-upon-Thames. Tenders by Feb. 4.

***Sutton and Cheam, Surrey.**—Roadworks programme 1961-62 for B.C. Deposit £2 2s. Tenders by Feb. 21.

Torpoint, Corn.—Making-up of three sections of roadway comprising the streets known as Carew Terrace, part of Cremyll Road, and the side lane at the northern end of Carew Terrace, for U.D.C. Documents from the Surveyor to the Council, York Road, Torpoint. Tenders by Feb. 6.

Truro, Corn.—Road extension, Springfield estate, Portscatho, for R.D.C. Applications to J. H. Snellgrove and Partners, quantity surveyors, 47 Coinagehall Street, Helston, by Jan. 31. Deposit £2 2s., cheques payable to R.D.C. Plans seen at the office of A. J. Cornelius, architect, 13 Lemon Street, Truro. Tenders by Feb. 27.

***West Bridgford, Notts.**—Removal of footbridge over Grantham Canal for U.D.C. Deposit £2. Tenders by Feb. 13.

West Riding.—Supply of tarmacadam and bitumen macadam, required in connection with the maintenance of highways during the period April 1, 1961, to March, 31, 1962, for C.C. Documents from the Office of the County Engineer and Surveyor, County Hall, Wakefield. Tenders by Jan. 31.

West Riding.—Redecking of part of Gildersome tunnel at the intersection of the Huddersfield-Leeds trunk road, A.62, and the Wakefield-Bradford trunk road, A.650, in the borough of Morley for C.C. The contract will include for the demolition of the existing deck and its replacement by a new deck composed of plated British standard beams with precast haunching and slabs supporting in-situ concrete. Documents from the County Engineer and Surveyor, County Hall, Wakefield. Deposit £5, cheques payable to West Riding Treasurer. Tenders by Feb. 20.

***Wigston, Leics.**—Private street works for U.D.C. Deposit £5 5s. Tenders by Feb. 16.

Williton, Som.—Following site works for R.D.C., comprising: (1) Danesborough View extension, advance preparation—710 sq. yd. of carriageway, 50yd. of 6in. diameter foul sewer and 6in. diameter surface water sewers, 350yd. of 3in. diameter asbestos-cement water main, valves, etc., 160 lin. yd. 10in. by 5in. precast concrete kerbing; (2) Whitecroft, completion of footpaths and verges—305 super. yd. tarmacadam, 290 lin. yd. edging kerb, 1,400 super. yd. cultivating and seeding of verges. Documents from S. E. Balch, engineer and surveyor, Council Offices, Fore Street, Williton, Taunton. Deposit £3 3s. cheque. Tenders by Feb. 6.

***Wiltshire.**—Road works A, B and C for C.C. Deposit £2 each. Tenders by Feb. 27.

Wortley, Yorks.—Road improvement works as follows, for R.D.C.: Fox Hill Road, Grenoside—works of reconstruction, including surface water drainage, length approximately 400yd.; Middleton Lane, Grenoside—reconstruction of highway, length approximately 135yd., the work includes surface water drainage and erection of mass concrete retaining wall. Contractors must be able to make an immediate start and complete within two months. Applications to Arthur Wikeley, Council Offices, Grenoside, near Sheffield. Deposit £3. Tenders by Feb. 10.

***York.**—Groves Redevelopment, contract 6, roadworks, for City Council. Deposit £2. Tenders by Feb. 13.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Aberaeron, Cards.—Llangybi sewerage scheme for R.D.C., which includes the following: Approximately 1,050yd. of 6in. diameter concrete tube and asbestos-cement sewers and 50yd. of 4in. diameter spun-iron rising main with pump house and pumping plant complete with other incidental works. Documents from S. G. D. Evans, clerk to the Council, Council Offices, 1 North Road, Aberaeron, or from J. Owen Parry and Lewis, Arcade Chambers, Ammanford. Deposit £5 5s. Tenders by Feb. 21.

***Abingdon, Berks.**—Main sewerage and sewage treatment scheme for B.C. Apply by Feb. 8.

***Angus.**—Outfall and sewers for Hillside drainage for C.C. Tenders by Feb. 20.

Armagh.—Laying of approximately 1,200 lin. yd. of 36in., 42in. and 48in. diameter pipe culverts with manholes, river intake, outfall and ancillary works, for U.D.C. Documents from Urban District Council Offices, City Hall, Armagh. Deposit £5 5s. Tenders by Feb. 6.

Banffshire.—Keith-Craigellachie-Grantown Road, route A95. Construction of an 8ft. by 8ft. culvert, 120ft. long in reinforced concrete with mass concrete wing walls, with the usual ancillary works, at Bridge of Balliemullich, near Aberlour, for C.C. Documents from the County Road Surveyor, County Buildings, Sandyhill Road, Banff. Deposit £2 2s. Tenders by Feb. 13.

***Basingstoke, Hants.**—Basing Road trunk sewer (Contract 4) for B.C. Deposit £5 5s. Tenders by Mar. 1.

Bathavon, Som.—Laying of approximately 100 lin. yd. of 6in. foul sewer together with manholes and house connections at Westwoods in the parish of Bathford, for R.D.C. Documents from the offices of the Surveyor, Council Offices, Westgate Buildings, Bath. Deposit £2 2s., cheque payable to R.D.C. Tenders by Feb. 15.

***Bournemouth, Hants.**—Throop foul sewer and rising main for B.C. Tenders by Mar. 16.

***Bridge-Bleasdale, Kent.**—Chislet (Upstreet) sewerage scheme for R.D.C. Tenders by Mar. 8.

Bristol.—Reconstruction of a sewage disposal works and a pumping station, and the laying of approximately 550yd. of 6in. diameter asbestos-cement rising main at Tone Vale Hospital for South Western Regional Hospital Board. Documents from the office of Binnie, Deacon and Gourley, engineers, Artillery House, Artillery Row, Westminster, S.W.1. Deposit £10, cheque payable to the Board. Tenders by Feb. 27.

Castle Ward, Northumb.—Construction of sewerage and sewage treatment works at Harlow Hill, 3½ miles west of Heddon-on-the-Wall, for R.D.C. The works include 460yd. of 4in. and 6in. s.g.w. sewers with 10 brick manholes, sedimentation tanks, filter and humus tank, together with all ancillary works. Documents from the offices of G. Edgar Dimmick, engineer and surveyor, Council Offices, Ponteland, Newcastle upon Tyne. Deposit £2 2s. Tenders by Feb. 8.

Depwade, Norfolk.—Construction of a sewage disposal system comprising a complete works, two pumping stations, considerable length of sewers and pumping mains, and allied works, in the village of Earsham, for R.D.C. Documents from the Engineer and Surveyor, Council Depot, Long Stratton, Norwich, Nor. 72W. Deposit £3. Tenders by Feb. 8.

***Ealing, Middx.**—Lammas Valley surface water sewer for B.C. Deposit £5. Tenders by Mar. 1.

Edeyrnion, Merioneths.—Contract 5, Llan-drillo sewerage, for R.D.C., including the construction of approximately 1,600yd. of 9in. and 6in. sewers and a sewage disposal works. Documents from Sandford Fawcett and Partners, consulting engineers, 53 Victoria Street, London, S.W.1. Deposit £5 5s. Plans also seen at the offices of the Surveyor and Public Health Inspector, Council Offices, Corwen. Tenders by Feb. 16.

***Fareham, Hants.**—West End surface water drainage scheme, Stage 2, for U.D.C. Deposit £2. Tenders by Feb. 23.

Forehoe and Henstead, Norfolk.—Newton Flotman housing site sewage disposal, for R.D.C., comprising the construction of a new settlement tank, filter bed and humus tank. Documents from W. A. Jones, engineer and surveyor, Ber House, 158 Ber Street, Norwich. NOR 56B. Deposit £1 1s. Tenders by Feb. 15.

Great Yarmouth, Norfolk.—Construction of a 30in. diameter main sewer to be laid at a depth of 20ft. for a length of approximately 600yd. Precast concrete socket and spigot pipes will be used in conjunction with precast concrete ring manholes at Cliff Park estate for B.C. Also included in this contract are excavating for and providing a 20ft. wide road base along the route of the sewer, providing gullies and gully connections, and ancillary works. Documents from the office of the Borough Engineer, Town Hall, Great Yarmouth. Deposit £5 5s. Tenders by Feb. 8.

***Guildford, Surrey.**—Stoughton recreation ground surface water sewer for B.C. Tenders by Feb. 13.

Havant and Waterloo, Hants.—Construction of approximately 340 lin. yd. of 15in. diameter foul water sewer, and ancillary works connected therewith, at Fishery Lane, Hayling Island, for U.D.C. Documents from the office of the Engineer and Surveyor, 1 Park Road North, Havant. Tenders by Feb. 9.

***Isle of Axholme, Yorks.**—West Butterwick sewerage scheme (Contracts 1 and 2) for R.D.C. Deposit £3 3s. each. Tenders by Feb. 23.

***Keighley, Yorks.**—Low level outfall sewer (Contract 1) for B.C. Deposit £5. Tenders by Feb. 9.

Kidwelly, Carms.—Sewerage extension scheme at Meinciau Road, Mynyddygarreg, for B.C., including the construction of the following works: (1) Approximately 1,190 lin. yd. 6in. diameter glazed stoneware sewers; (2) approximately 500yd. 4in. diameter glazed stoneware sewer connections; (3) approximately 13 precast concrete manholes. Documents from the Borough Offices, Bridge Street, Kidwelly. Deposit £2 2s., cheque. Tenders by Feb. 7.

Kiveton Park, Yorks.—Firbeck sewerage for R.D.C., comprising the provision, laying and jointing of about 4,800 lin. yd. of 6in. diameter concrete tubes and 300 lin. yd. of 6in. diameter iron pipes together with connections for existing drains and all appurtenant manholes, etc. The works are situated about six miles north of Worksop, Notts. Documents from the offices of Elliott and Brown, consulting engineers, Stanley House, Pelham Road, Nottingham. Deposit £5 5s. cheque. Tenders by Mar. 2.

Lymington, Hants.—Modernisation of the Barton sewage disposal works, consisting mainly of the following for B.C.: (1) Provision of new reinforced concrete detritus tank, comminutors, flow recording apparatus, etc.; (2) demolition of existing tanks and provision of seven new reinforced concrete storm water tanks; (3) provision of three new reinforced concrete circular settlement tanks; (4) conversion of four existing settlement tanks into sludge digestion tanks; (5) provision of new sludge pump houses, pump wells, pumps, drains, rising mains, etc.; (6) provision of approximately 470yd. of new 24in. diameter storm water outfall sewer; (7) ancillary buildings, pipework, service roads, etc. Applications to Harold Edward Stopher, borough engineer and surveyor, Town Hall, High Street, Lymington, with full particulars of any similar work already carried out and names and addresses, preferably of local authorities, to whom reference may be made. Tenders by Feb. 24.

***Manchester.**—Charleston Road tip culvert for City Council. Tenders by Feb. 27.

***Newport, Salop.**—Works of sewerage and sewage disposal, contract 2, for U.D.C. Deposit £5 5s. Tenders by Mar. 3.

Ringwood and Fordingbridge, Hants.—Burton and Winkton drainage, contract 2, for R.D.C., including the construction of approximately 50 lin. yd. of 15in. diameter, 325 lin. yd. of 12in. diameter, 840 lin. yd. of 9in. diameter, 4,370 lin. yd. of 7in. diameter and 410 lin. yd. of 6in. diameter spun-iron pipe sewers, and 1,720 lin. yd. of 7in. and 6in. diameter stoneware pipe sewers, at Burton and Winkton in the parishes of Christchurch East, together with a pumping station, manholes, house connections and other appurtenant works. Documents from John Taylor and Sons, engineers, Artillery House, Artillery Row, Victoria Street, S.W.1. Deposit £10, cheque payable to R.D.C. Plans also seen at the offices of the Surveyor, Public Offices, Ringwood. Tenders by Feb. 27.

Salisbury and Wilton, Wilts.—Construction of approximately 730yd. of 6in. and 9in. diameter surface water sewer and 1,150 sq. yd.

of gravel surfaced hardstanding on Spiders Island estate, Alderbury, for R.D.C. Documents from Surveyor of the Council at 26 Endless Street, Salisbury. Tenders by Feb. 6.

***Sheerness, Kent.**—Outfall pumping station, West Minster, for U.D.C. Deposit £3 3s. Tenders by Mar. 7.

Stroud, Glos.—Old neighbouring sewerage scheme, laying sewers for R.D.C. The works will comprise the following: Approximately 650 lin. yd. 6in. diameter sewer; approximately 20 precast concrete manholes; together with ancillary works. Applications to W. Herbert Bateman and Partners, Chesterfield House, Batheaston, Bath, with the names and addresses of at least two engineers under whose direction similar works have been carried out. Deposit £5 5s., cheque payable to R.D.C. Tenders by Feb. 20.

Tendring, Essex.—Western area sewerage scheme for R.D.C., comprising the construction of approximately 19,500yd. of 6in. and 9in. stoneware sewers; 6,500yd. of 4in., 6in. and 7in. rising main, 283 manholes; seven pumping stations and a sewage treatment works consisting of screening chambers, settlement tanks, percolating filters, humus tanks, digestion tanks, sludge beds and ancillary works. Documents from W. S. Laing, engineer and surveyor, Council Offices, Weeley, near Clacton-on-Sea. Deposit £2 2s. Tenders by Feb. 27.

***Tetbury, Glos.**—Avening sewerage for R.D.C. Deposit £2. Tenders by Feb. 8.

Watford, Herts.—Construction of the following at Holywell estate 2 (part) for B.C.: 774 lin. yd. of single sewers, 6in. in diameter to 2lin. diameter, in open cut up to 16ft. deep; 274 lin. yd. of dual sewers, 12in. in diameter to 2lin. diameter, in open cut up to 12ft. 6in. deep; five twin manholes; nine single manholes, together with other ancillary works. Documents from F. C. Sage, borough engineer and surveyor, Town Hall, Watford. Deposit £5 5s. Tenders by Feb. 13.

***West Ham, Essex.**—Canning Town pumping station (Contract 1) for B.C. Deposit £5. Tenders by Mar. 1.

STREET LIGHTING

***Cardiff.**—Supply street lighting equipment for City Council. Tenders by Feb. 20.

Golborne, Lancs.—Supply only of concrete and cast-iron columns, class B, totally enclosed lanterns, sodium discharge lamps and control gear for 188 lighting units for U.D.C. Documents from J. B. Hoyle, engineer and surveyor, Council Offices, Lowton, near Warrington. Deposit £2 2s. Tenders by Feb. 27.

Hornsey, Middx.—Supply of sodium discharge lamps for B.C. Documents from Borough Engineer, Town Hall, Hornsey, N.8. Tenders by Feb. 13.

Salford, Lancs.—Supply of the following during the period Apr. 1, 1961, to Mar. 31, 1962, for City Council: (1) 15ft. concrete columns; (2) 60 watt sodium vapour totally enclosed lanterns with ancillary equipment; (3) 100-150 watt class B totally enclosed lanterns; (4) time switch and fuse boxes; (5) synchronous time switches (solar dial). Applications to the Street Lighting Superintendent, 9 Frederick Road, Pendleton, Salford 6. Tenders by Feb. 21.

Staffordshire.—Provision of street lighting on Watling Street (trunk road A5), at the following for C.C.: (a) Gailey Roundabout (junction with A.449); (b) Buckley Corner Roundabout (junction with A.461); (c) Fazeley Roundabout (junction with A.4091). The systems will comprise in total 25 lighting points utilising 200-watt linear sodium lamps on steel columns with a mounting height of 30ft. Documents from the County Surveyor, County Buildings, Stafford. Tenders by Feb. 6.

AWARDS

BUILDING AND DECORATING

(See also Housing Schemes)

Aylsham, Norfolk.—Erection of an old people's home for C.C.—R. G. Carter, Ltd., Drayton, Norfolk, £69,686.

Bedfordshire.—Erection of Special School, Kempston, for C.C. The school will comprise six classrooms, assembly hall, library, sanitary accommodation, storage, etc., and will be constructed part of steel frame and part load-bearing brickwork, the total superficial floor area being 9,700 sq. ft.—Arthur Sanders, Ltd., Rectory Road, Rushden, £39,917 (accepted); Redman (Builders), Ltd., £46,661; Warton and Goodship, Ltd., £47,883; Wm. J. Bushly, Ltd., £47,895; J. M. Hill and Sons (Amphill), Ltd., £49,453; Besbuit, Ltd., £47,064.

Bermondsey. — Alterations and additions at Snowfield Primary School for L.C.C.—John Crisp, Ltd., 96 Wellington Street, London, S.E.18, £9,981.

Birmingham. — Following for the Regional Hospital Board: Re-tiling at Moneyhull Hospital—R. J. and T. Wormell, Ltd., 141 Brandwood Road, Birmingham, 14, £1,700; rebuilding of chimney heads at Chelmsley Hospital—A. G. Churcher (Birmingham), Ltd., 165 Lozells Road, Birmingham, 19, £1,997; recovering of ward floors at Marston Green Maternity Hospital—Semtex, Ltd., Birmingham, £1,149; interior decoration and new floor covering of wards and corridors at St. Chad's Hospital—C. Bryant and Son, Ltd., 65 Whitmore Road, Birmingham, 10, £1,245, and Birmingham Asphalt and Paving Co., Ltd., 25 Whitmore Road, Birmingham, 10, £1,262, respectively; renovations to entrance lodge and floor covering in wards B4 and B4a at Summerfield Hospital—David Charles, Ltd., 45 Green Lane, Birmingham, £1,470; and Furnishings and Floorings (Wolverhampton), Ltd., 35 Berry Street, Wolverhampton, £1,871, respectively; redecorations at J. K. and M. blocks, and paint washing at Selly Oak Hospital—F. Deely, Ltd., 210 High Street Harborne, Birmingham, £3,864, and Clean Walls, Ltd., £5,070, respectively; interior redecorations at The Woodlands and The Forelands—C. Bryant and Son, Ltd., £4,008, and Whiteman Decorations, Ltd., 179 Gravelly Lane, Birmingham, 23, £1,046, respectively (recommended).

Blackpool, Lancs. — Construction of a double-storey office and stores building at Coleridge Road Depot for the Fylde Water Board: Drainage work, foundations and reinforced concrete superstructure—Brown and Jackson, Ltd., Elm Street, Fleetwood; aluminium curtain walling—Williams and Williams, The Strand, Liverpool. Tenders will be invited for various stages of remaining work as these are required.

Blaydon, Dur. — Office additions, Chain Bridge Road for Marshall Branson, Ltd.—Purdie Lumden and Co., Ltd., Oxford Street, Newcastle upon Tyne.

Blyth, Northumb. — Erection of X-ray room at the Thomas Knight Memorial Hospital for Newcastle upon Tyne Hospital Board—R. Rush, Union Street, Blyth, £3,404.

Brighton, Sussex. — Erection of multi-storey flats at Albion Hill, stage III, for B.C.—Rice and Son, Ltd., 23 Gloucester Place, Brighton, £318,250 (recommended); Tersons, Ltd., £318,273; Griggs and Son, Ltd., £324,415; Kirk and Kirk, Ltd., £327,750; Carlton Contractors, Ltd., £332,699; Y. J. Lovell and Sons, Ltd., £335,413; M. J. Gleeson (Contractors), Ltd., £336,385.

Bristol. — Adaptations to part of the second floor of block 3 of the College of Science and Technology for City Council—Frank Bowtell, Ltd., 1 Ladysmith Road, Bristol, 6, £2,678 (recommended).

Bromsgrove, Worcs. — Following for the Birmingham Regional Hospital Board: Modernisation of sanitary accommodation in ward E at All Saints Hospital—William Street and Sons, Ltd., 164 Bishop Street, Birmingham, 5, £1,227; making good brickwork to Lancashire boilers at Barnsley Hall Hospital—Chimney Construction Co., Ltd., 10a Hagley Road, Stourbridge, £3,722; interior redecoration and laundry repairs at Bromsgrove Cottage Hospital—Dolton Bros., Ltd., 43 Newtown Road, Worcester, £1,314 (recommended).

Bury St. Edmunds, Suffolk. — Erection of a poultry processing and packing factory in the Mildenhall Road area for J. Sainsbury, Ltd., Stamford House, Blackfriars, London, S.E.1. Pick, Everard, Keay and Gimson, architects, 6 Millstone Lane, Leicester—William Sindell, Ltd., 347 Cherryhinton Road, Cambridge.

Bury St. Edmunds, Suffolk. — Erection of Methodist Home for Aged on site adjoining King Edward VI Grammar School for the Trustees—W. J. Baker (Building Contractors), Ltd., Nostra Domus, Furze Close, Thurston, Bury St. Edmunds. Grenfell Baines and Hargreaves, architects, 12-24 Guildhall Street, Preston, and A. E. Towler, quantity surveyor, Manfield Chambers, 117 Fishergate, Preston.

Cambridge. — Erection of part of the University Medical School on new Addenbrooke's Hospital site, off Hills Road, for the joint use of the University Department of Radiotherapy and the Medical Research Council of Molecular Biology—Kerridge (Cambridge), Ltd., 26 Sturton Road, Cambridge. Total estimated cost £350,000. Easton and Robertson, Cusdin, Preston and Smith, architects, 53 Bedford Square, London, W.C.1; Hamilton Turner and Son, quantity surveyors, 19 Queen Anne's Gate, London, S.W.1; Ove Arup and Partners, structural engineers, 8 Fitzroy Street, London, W.1, and Brandt

and O'Dell, mechanical and electrical engineers, 12 Queen Anne Street, London, W.1.

Second stage of the residential block and master's lodge at the new Churchill College site at Storey Way—Rattee and Kett, Ltd., Station Road, Cambridge. Richard Sheppard, Robson and Partners, architects, 5 Southampton Place, London, W.C.1; E. C. Harris and Partners, quantity surveyors, Lynton House, Tavistock Square, London, W.C.1, and Hajnal and Myers, structural consultants, 7 The Park, Golders Green, London, N.W.11.

Chester-le-Street, Dur. — Erection of public house at Walridge Road for Vaux and Associated Breweries, Ltd., The Brewery, Sunderland. E. M. Lawson, architect, Barras Buildings, Barras Bridge, Newcastle upon Tyne—Snowdon of Darlington, 4 Duke Street, Darlington. Work commenced.

Chippenham, Wilts. — Following for B.C.: Provision of bathrooms, hot water systems and electrical re-wiring of 157-179 Wood Lane—T. J. and R. C. Neal (Sherston), Ltd., Noble Street, Sherston, Malmesbury, £3,784; erection of a building to house booster pump and additional filters at Ivyfields—Blackford and Son (Calne), Ltd., London Road, Calne, £58,267 (recommended, subject to Ministry approval).

Consett, Dur. — Extensions to mortuary at Shotley Bridge Hospital for Newcastle Hospital Board—R. Gallacher, Ltd., Laburnum Avenue, Blackhall, Co. Durham, £3,850.

Coventry. — Redecoration and washing down at Stoney Stanton Road and Keresley branches of Coventry and Warwickshire Hospital for the Birmingham Regional Hospital Board—R. Pountney, 109 Evenlode Crescent, Coventry, £3,654 and £1,275, respectively (recommended).

Cromer, Norfolk. — (a) Improvements to nurses' accommodation and (b) erection of stoas for open-air exercises at Mundesley Hospital for East Anglian Regional Hospital Board—(a) H. Bullen and Son, Ltd., Central Road, Cromer, £9,436, (b) B. E. Gotts, Sunnyside, Trunch Road, Mundesley, £792 (recommended).

Darlington, Dur. — Erection of canteen for Darlington Farmers' Auction Mart Co., Ltd.—T. Willoughby, Old Grammar School, Northallerton, £7,000.

Dorchester. — Supply and installation of wash-hand basins in 230 Council houses for B.C.—W. C. Trim, 16 Margaret Place, Dorchester, £2,293 (recommended).

Dundee. — Erection of a store at 65-71 Murraygate, Dundee, for Richard Shops, Ltd., 364 Kensington High Street, London, W.14. B. Katz and R. Vaughan, architects, 208a Regent Street, London, W.1—Bovis, Ltd., 1 Stanhope Gate, London, W.1.

Durham. — Additions to Crowtree Workmen's Club, Bowburn. J. M. Angus, architect, 3 Gallowgate, Newcastle upon Tyne—R. W. Bell and Co., Ltd., Mistletoe Road, Jesmond, Newcastle upon Tyne.

Erection of sanitary annexes at Dryburn Hospital for Newcastle Hospital Board—F. W. Goodeyear and Son, 60 Claypath, Durham, £4,804.

Easington, Dur. — Conversion of laundry into X-ray department at Leeholme Hospital for Newcastle Hospital Board. P. H. Knighton, Board's chief architect—Mark W. Foster, Ltd., Grantham Road, Sunderland, £7,500.

Essex. — Following for C.C. H. Conolly, county architect—Erection of Colchester Pettygate County Infants' School—Hutton (Builders), Ltd., Birch, near Colchester, £42,900.

Additional classroom at Basildon The Moathouse E.S.N. School—Sam Longley, Ltd., Farm Road, Orsett Heath, near Grays, Essex, £5,912. Work commenced.

Gateshead, Dur. — Extensions to divisional headquarters offices of the Durham Divisional Coal Board, Team Valley trading estate. Plans by the Board's Architects' Department—Leslie and Co., Woodland Road, Darlington.

Glasgow. — Erection of new 100-bed maternity hospital in the grounds of the Royal Hospital for Sick Children, Yorkhill, for Western Regional Hospital Board, 64 West Regent Street, Glasgow, C.2—Crudens, Ltd., Musselburgh, Midlothian. Estimated cost £400,000.

Harrogate, Yorks. — Construction of an implement store shed at Claro Road depot for B.C.—Wrightson and Robinson, 14 Kirkham Place, Harrogate, £977 (recommended).

Hartley Wintney, Hants. — Improvement works to 14 pre-war council houses at Hook, for R.D.C.—Spear and King, Ltd., 84 Gordon Road, Camberley, Surrey, £5,031 (subject to Ministry approval).

Harwich, Essex. — Erection of a parsonage at Parkesdon for Parochial Church Council—E. Saunders and Son, Ltd., Hill Crest Works, Dovercourt, Harwich, £3,985.

Havant and Waterloo, Hants. — Erection of three trading kiosks and a store opposite Chichester Avenue, on the Beachlands, Hayling Island, for U.D.C.—Johns and Harris, Briarwood, Mill Road, Fareham, Hants.

Havant, Hants. — Erection of factory at New Lane, Leigh Park, for Stine, Atkinson, Vickers (Hydraulic), Ltd. Thomas, Jolly and Grant, architects, 26 Kent Road, Southsea, Portsmouth—Jno. Croad, Ltd., Portland Street, Portsmouth.

Haydock, Lancs. — Erection of vicarage for St. James's Church—J. Bolton and Son, Ltd., Wigton.

Hull. — Erection of surgery accommodation on Corporation housing estates: (a) Greatfield estate, (b) Horbury Avenue, Marfleet Lane, for City Council. A. Lazenby, architect, 20 Albion Street—(a) T. A. Hebdon and Co., Ltd., 27 Waller Street, Hull; (b) Geo. H. Pantom and Sons, Ltd., 204 Anlaby Road, Hull.

Ipswich, Suffolk. — Following for the East Anglian Regional Hospital Board: Improvements, including new sanitary annexe for Jenner and Addison wards, at Ipswich and East Suffolk Hospital (Heath Road wing)—Sadler and Sons, 81 Richmond Road, Ipswich, £2,789; (a) construction of community survey office, dispensary and sister's office, and (b) extension of X-ray room and provision of dark room office at St. Helen's Hospital—(a) J. F. King, Dales Road, Ipswich, £2,965; (b) Gower and Howett, Ltd., Wolsey Street, Ipswich, £2,498; conversion of attics for male staff quarters at St. Mary's Hospital, Tattingstone—A. S. Green (Ipswich), Ltd., 6 Bolton Lane, Ipswich, £6,948; adaptation of Warren House for early treatment unit and provision of occupational therapy unit at St. Clement's Hospital—Direct Labour, £4,470 and £5,000, respectively (all recommended).

Ipswich. — Erection of Shell-B.P. House at Princes Street for City Centre Properties, Ltd.—J. Gerrard and Sons, Ltd., 160 Hadleigh Road, Ipswich. Estimated cost £460,000. Cotton Ballard and Blow, architects, Cavendish House, Waterloo Street, Birmingham, 2; O. A. Wainwright and Partners, quantity surveyors, Union Chambers, 62 Temple Row, Birmingham, 2; and A. E. Couzens, heating, ventilation and electrical engineer, 105 Aston Road, Birmingham.

Islington. — Supply and erection of structural floors and reinforced concrete works to blocks 1 and 2 at Lowther Road site for L.C.C.—Frazzi, Ltd., Lennox House, Norfolk Street, London, W.C.2, £10,169.

Keynsham, Som. — Erection of a civic centre at Keynsham for U.D.C.—Holland & Hannen and Cubitts, 13 Dowry Square, Bristol, 8, £109,425. Work has commenced.

Kidderminster, Worcs. — Following for the Birmingham Regional Hospital Board: Redecoration and improvement to two wards at the General Hospital—T. Projects, Ltd., 4 Lion Street, Kidderminster, £1,436; modernisation of part III accommodation at Blakebrook Hospital—Lacy Bros., Ltd., Adam Street, Kidderminster, £1,757 (recommended).

Lambeth, Lond. — Construction of structural floors and reinforced concrete works to blocks 1 and 2 Ashmole Place site for L.C.C.—The Kleine Co., Ltd., 9 George Street, London, W.1, £11,710.

Leeds. — Erection of a new seven-storey office building in Park Row for Prudential Assurance Co., Ltd.—Simms, Sons and Cooke, Haydn Road, Sherwood, Nottingham. Plans by architect's department, Pritchard Williams and Hunt, quantity surveyors, 40 Furnival Street, London, E.C.4, and Bylander, Waddell and Partners, 169 Wembley Park Drive, Wembley, are the structural engineers. Work just commenced.

Leek, Staffs. — Following at St. Edwards Hospital, Cheddleton, for the Birmingham Regional Hospital Board: (a) Modernisation of ward windows; (b) repairs to eaves, gutters, etc.; (c) repainting to wards; (d) work to chimney stacks; (e) treatment of dry rot and reconstruction and (f) re-flooring of wards—Cousens and Allport, Ltd., Moorland Road, Burslem, Stoke-on-Trent, (a) £1,074; (b) £2,082; (c) £1,060; (d) £1,858; (e) £3,227; and (f) £1,670; (g) re-slating—Manchester Slate Co., Ltd., Lancaster Road, Manchester, 20, £1,296; (h) exterior painting—Mollatts (Hanley), Ltd., 2 Hillchurch Street, Hanley, Stoke-on-Trent, £1,800 (recommended).

Loddon, Norfolk. — Upgrading at Hales Hospital for East Anglian Regional Hospital Board—T. Gill and Son (Norwich), Ltd., Hall Road, Norwich, £13,839 (recommended).

London. — Erection of a building at 41-46 Featherstone Street, London, E.C.2, for Leigh Commercial Developments, Ltd.

A. G. Porri and Partners, architects, 13 Great James Street, London, W.C.1.—Higgs and Hill, Ltd., Crown Works, South Lambeth Road, London, S.W.8. Estimated cost £138,000.

Extensions at 55-71 City Road, London, E.C.1, for Leigh Commercial Developments, Ltd.—Higgs and Hill, Ltd. Estimated cost £300,000.

Lowestoft, Suffolk.—Construction of a new quay and factory at Waveney Drive for Boulton and Paul, Ltd.—J. L. Kier and Co., Ltd., Setch, King's Lynn, £920,000. Posford, Pavry and Partners, consulting engineers, Abbey House, Victoria Street, Westminster, London, S.W.1, and Hutchinson and Martin, architects, 37 Great James Street, Bedford Row, London, W.C.1.

Luton, Beds.—Laboratory bench fittings for the science block at Luton High School for B.C.—H. C. Janes, Ltd., 183 High Town Road, Luton, £6,959.

Middlesbrough, Yorks.—Erection of three-storey office block at Albert Road for the Royal Globe Insurance Co., Ltd. Newick and Blackbell, architects, 58 John Street, Sunderland—G. W. Lazenby and Co., Ltd., Ferryhill, Co. Durham. Work just started.

Norwich.—Following for East Anglian Regional Hospital Board: (a) Additions to laundry and (b) provision of out-patient dressing and waiting rooms for burns and plastic unit at West Norwich Hospital—(a) Ford and Carter, Ltd., Baltic House, Mountergate, Norwich, £4,516, and (b) H. C. Greengrass and Sons, Ltd., 161 Oak Street, Norwich, £1,960; provision of sanitary annexe for female wards 11 and 12 at St. Andrew's Hospital, Thorpe—Ford and Carter, Ltd., £17,649 (recommended).

Oakengates, Salop.—Erection of headquarters at Charlton Street for the Oakengates Old People's Welfare Committee—D. B. Evans (Bilston), Ltd., Oxford Street, Bilston. Estimated cost £5,000.

Peterborough.—Painting of street lighting columns and vents shafts during 1961-62 for City Council—F. A. Clover and Son, £1,538 (recommended).

Peterlee, Dur.—Erection of Post Office at Manor Way, Peterlee—Middleton and Co. (Sunderland), Ltd., Queen Alexandra Bridge Approach, Sunderland.

Pontefract, Yorks.—Fourth phase of scheme for reorganisation of main block at Northgate Lodge for West Riding C.C.—C. Brunt and Son, Ltd., Marchant Street, Castleford, £7,162 (recommended).

Poplar.—Construction of garages and other work at Birchfield Estate for L.C.C.—W. and C. French, Ltd., Buckhurst Hill, Essex, £6,238.

Ramsgate, Kent.—Supply and erection of the structural members for the provision of 80 chalets in two tiers with shelters underneath at the Western Undercliff for B.C.—Nebroc, Ltd., West Borough, Maidstone.

Rowley Regis, Staffs.—Erection of first stage of central depot at Waterfall Lane for B.C.—R. G. Horton (Engineers), Ltd., Delph Road, Brierley Hill, £43,286 (recommended, subject to Ministry approval).

St. Helens, Lancs.—Additions to premises in Duke Street for the Y.M.C.A.—J. Gerrard and Sons, Ltd., Swinton, Lancs, £39,000. Herbert Thearle and Partners, architects, 66 Rodney Street, Liverpool, 1; and J. Youdan Briggs and Partners, quantity surveyors, 19 Old Hall Street, Liverpool, 3.

Southwark.—Construction of lavatories in the Central Library for B.C.—J. A. Dumayne, Ltd., 1 Browning Street, London, S.E.17, £2,882 (recommended).

Spennymoor, Dur.—Factory extension, Spennymoor trading estate for Industrial Estates Management Corporation Fennell and Baddiley, architects, Bridge End Chambers, Chester-le-Street—Bell and Ridley, North Road, Durham.

Stafford.—Following for the Birmingham Regional Hospital Board: Interior decoration of ward female 10 and alteration to kitchen and duty rooms of male ward at St. George's Hospital—G. Lawton and Son, 37 Corporation Street, Stafford, £1,174; and H. Wood and Son, Ltd., 39 Qulton Road, Stone, £1,979, respectively; kitchen modifications and sanitary work at Coton Hill Hospital—H. Wood and Son, Ltd., £1,235 (recommended).

Stoke-on-Trent, Staffs.—Re-tiling of C villa roof at Stallington Hall Hospital for the Birmingham Regional Hospital Board—Harry Mountford (Builders), Ltd., Old Quarry, Uttoxeter Road, Blythe Bridge, Stoke-on-Trent, £1,090 (recommended).

Sunderland, Dur.—Construction of blacksmith's shop for William Doxford and Sons, Pallion Engine Works—Brims and Co., Ltd., City Road, Newcastle upon Tyne.

Sutton Coldfield, War.—Interior repainting at Sutton Coldfield Hospital, for the Birmingham Regional Hospital Board—David Charles, Ltd., 45 Green Lane, Birmingham, £1,249 (recommended).

Tanfield Lea, Dur.—Erection of new workers' club—J. M. Angus, architect, 3 Gallowgate, Newcastle upon Tyne—Victor Dillon, Ltd., Sunnside Road, Whickham, Co. Durham.

Tenbury Wells, Worcs.—Interior redecoration at Tenbury and District Hospital for the Birmingham Regional Hospital Board—T. Oliver (Builders), Ltd., St. Martins Works, James Street, Worcester, £1,391 (recommended).

Wallasey, Cheshire.—Erection of dressing pavilion, Central Park, for B.C. W. P. Clayton, borough architect, Gallimore (Wallasey), Ltd., 1 Waterloo Road, Wallasey. Work has commenced.

Wallsend, Northumb.—Factory additions, Coast Road for George Angus and Co., Ltd., S. W. Milburn and Partners, architects, 9 Esplanade, Sunderland—Bovis, Ltd., Stanhope Gate, London, W.I.

Wandsworth.—Alterations and additions to Elmfield Secondary School for L.C.C.—C. Ash and Son, Ltd., 71c South Side, London, S.W.4, £16,007.

Warwick.—Modernisation of sanitary annexe to children's ward at the King Edward VII Memorial Chest Hospital for the Birmingham Regional Hospital Board—E. H. Burgess, Ltd., 61 Warwick Street, Leamington Spa, £1,868 (recommended).

Whitburn, Dur.—Construction of rifle range for the Durham Light Infantry, Newick and Blackbell, architects, 58 John Street, Sunderland—Stewart Bros., Peacock Street, Sunderland.

Widnes, Lancs.—Erection of the addition of four classrooms and ancillary accommodation at Oakfield County Primary School for B.C. The structure will be steel framed; floor area approximately 5,500 sq. ft. H. Neville Player, borough architect—William Neill and Sons (St. Helens), Ltd., Parr Works, St. Helens, £20,844. Work commencing Feb.

Woodbridge, Suffolk.—Roofing of open yard of male occupational therapy unit at St. Audry's Hospital, Melton, for East Anglian Regional Hospital Board—Direct Labour, £1,450 (recommended).

Woolwich.—Major repairs, redecorations and minor improvements at Woodhill Primary School for L.C.C.—Hotson Bros., Ltd., 37 Balham Park Road, London, S.W.12, £28,969.

CLOTHING AND TEXTILES

Gosport, Hants.—Supply of 23 $\frac{1}{2}$ length coats, 42 $\frac{1}{2}$ length coats with leather shoulders, three full-length coats, 68 sou'westers, and 65 pairs waterproof leggings for B.C.—Greengate and Irwell Rubber Co., Ltd., Greengate Works, Manchester, £311 (recommended).

Halesowen, Worcs.—Supply of seven dozen pairs of overalls (cleaning section) for B.C.—I. Billingham, 37 Windmill Hill, Colley Gate, Cradley, Staffs., £2 2s. 9d. per pair (recommended).

DEMOLITION

Belfast.—Demolition of two 180ft. chimneys at the East Bridge Street power station for City Council—John Eastwood and Sons, Ltd., Andersonstown, Belfast, 11.

Dover, Kent.—Demolition of first phase of Seagulls Hotel, Clifton Crescent, for B.C.—Dover Demolition and Erection Co., Ltd., 30 Castle Street, Dover.

Halesowen, Worcs.—Demolition of the stables, stable cottages and bungalow at the Leasowes for B.C.—J. Chapman, 203 Balsall Heath Road, Birmingham, 12, £245 (recommended extension of contract).

Midstone, Kent.—Demolition of Mason's Brewery at waterside and the construction of a car park for B.C.—P. A. Barden and Sons, Ltd., Weaverling House, Ashford Road, Maidstone, £6,066 (recommended).

Sheffield.—Demolition of 10 dwellings and a factory in the Park Hill redevelopment area (stage 2, part 2) for City Council—J. W. C. Middleton, 38 Temple Street, Castleford, Yorks, £110 (recommended).

Southwark.—Demolition of 92-116 Larcom Street, to provide site for garages for B.C.—Henry Froud, Ltd., Primrose Wharf, Tunnel Avenue, London, S.E.10, £1,524 (recommended); E. W. Spears and Co., Ltd., £1,555; Goodman Price, Ltd., £1,638; H. Cox and Sons, £1,719.

ELECTRICAL

Bromsgrove, Worcs.—Replacement of existing cleat wiring in group stores, Lickey End, for the Birmingham Regional Hospital Board—James Ward (Worcester), Ltd., Broad Street, Worcester, £1,249 (recommended).

Carlisle, Cumb.—Sub-trades let by the City Council for construction of new civic centre. Main contractors—John Laing and Son, Ltd., Dalston Road, Carlisle;

electrical work—D. Thomson, Ltd., Newtown, Carlisle, £40,380; mechanical and engineering services—Selborne Engineering Co., Ltd., Selborne Gardens, Newcastle upon Tyne, £68,684.

C.E.G.B.—The Central Electricity Generating Board have placed contracts during the past month for power stations, transmission lines and transforming stations amounting in the aggregate to approximately £7,305,000. The principal contracts include:

- Drakelow C power station: circulating water pipework for units 9-12—Aiton and Co., Ltd.
- Skelton Grange B power station: one 144-MVA, 132-kV generator transformer 14—Hackbridge and Hewitt Electric Co., Ltd.
- Richborough power station: railway sidings—Grant-Lyon and Co., Ltd.; booster and main boiler feed pumps for unit 3—Harland Engineering Co., Ltd.
- Oldbury nuclear power station: circulating water system, river works and site preparation—Sir Lindsay Parkinson and Co., Ltd.
- Thorpe Marsh power station: building and civil engineering works at 275-kV substation—Mitchell Construction Co. Ltd.
- Pyle sub-station: one 45-MVA, 132/66/33-kV transformer and earthing former—English Electric Co., Ltd.
- Finsbury Market sub-station: three 15-MVA, 132/11-kV transformers—Ferranti, Ltd.
- Three Bridges sub-station: 132-kV switchgear—English Electric Co., Ltd.
- Elstree sub-station: 132-kV switchgear—A. Reyrolle and Co., Ltd.
- Wickham Market sub-station: 132-kV switchgear—Associated Electrical Industries Ltd.
- Barking sub-station: 275-kV isolators—A. Reyrolle and Co., Ltd.
- Whitton sub-station: 275-kV switchgear—A. Reyrolle and Co., Ltd.
- Carrington sub-station: 275-kV switchgear—Associated Electrical Industries, Ltd.
- Whitfield sub-station: site and foundation works—G. Percy Trentham.
- Brinsworth sub-station: foundations—Tarmac, Ltd.
- Festiniog power station: 16-kV and lower voltage cables and earthing—Pirelli-General Cable Works, Ltd.
- Northfleet power station, east and west sub-stations: 132-kV cables—Pirelli-General Cable Works, Ltd.
- West Didsbury, rifle road: 132-kV cables and multicore cables—British Insulated Callender's Cables, Ltd.
- Exeter Main, Newton Abbot: 132-kV line—Pirelli General Cable Works, Ltd.
- Holborn, St. Marylebone: 132-kV cables—Pirelli-General Cable Works, Ltd.
- St. Marylebone, Mill Hill: 132-kV cables—Pirelli-General Cable Works, Ltd.
- Dorchester.—Electrical rewiring of 82 houses at Victoria Park housing estate for B.C.—Rogers and Dawes, Ltd., Handel House, High Street West, Dorchester, £1,853 (recommended).
- Ipswich, Suffolk.—Supply and erection of a lift at Chantry Park Convalescent Home for the East Anglian Regional Hospital Board—Hammond and Champness, Ltd., Haskins Works, Blackhorse Lane, London, E.17, £636 (recommended).
- Luton, Beds.—Following for B.C.: Electrical installation in 10 old people's dwellings at Muswell Close, Runfold estate—J. H. Burtenshaw, 20 Curlew Road, Luton, £813.
- Supply and installation of traffic control signals at the junction of Eaton Green Road with Harrowden Road—Automatic Telephone and Electric Co., Ltd., Strowger House, 8 Arundel Street, London, W.C.2, £1,212 (subject to Ministry approval).
- Newcastle upon Tyne.—Improved electric lighting at Whickham View Secondary Modern Schools for City Council—Dougal Siemens and General Electric Railway Signal Co., Ltd., East Lane, North Wembley, Middx, £1,613.
- Peterborough.—Provision and installation of traffic signals at junction of Bridge Street and Embankment Road for City Council—Siemens and General Electric Railway Signal Co., Ltd., East Lane, North Wembley, Middx, £1,613.
- Ross-on-Wye, Herefs.—Renewal of electric wiring and indicator system at Ross Cottage Hospital for the Birmingham Regional Hospital Board—A. M. Harrower, 38 Widemarsh Street, Hereford, £1,142 (recommended).
- Southwark.—Supply and installation of three electric passenger lifts at the London School of Printing and Graphic Arts for L.C.C.—The Express Lift Co., Ltd., Northampton, £40,945.
- Stepney.—Supply of two electric passenger lifts for block 4 at Mountmorres Road areas

for L.C.C.—The Express Lift Co., Ltd., Northampton, £12,830.

Thorpe, Yorks.—Building and civil engineering works at the Thorpe Marsh power station, comprising foundation, reinforced concrete structures, access road, relay and plant buildings and drainage works for C.E.G.B.—Mitchell Construction Co., Ltd., Peterborough. Estimated cost £150,000.

FENCING

Luton, Beds.—Provision of fencing along the new boundary of the airport for B.C.—Escay Fencing Contractors, Ltd., £773.

Rowley Regis, Staffs.—Supply and erection of 6ft. high unclimbable steel railings on the off-side bank of Dudley Canal, between Doulton Road and Powke Lane for B.C.—Johnson Bros. and Co., Ltd., Marlow Street, Walsall, £4,709 (recommended, subject to Ministry approval).

GAS AND WATER SUPPLY

Aberystwyth, Cards.—Construction of a reinforced concrete reservoir and incidental works at Hen Gaer for R.D.C. A. H. S. Waters and Partners, consulting engineers, 25 Temple Row, Birmingham, 2—Wilson Lovatt and Sons, Ltd., Clarence Street, Wolverhampton, £61,023. Work about to commence.

Ballymoney, Antrim.—Construction of a dam at Altnahinch on the River Bush for R.D.C.—Reed and Mallik, Ltd., Muir of Ord, Ross-shire, £674,125.

Chelmsford, Essex.—Laying and jointing of the following water mains for R.D.C.: (a) Approximately 1,436yd. of 4in. and 195yd. of 3in. asbestos-cement pressure pipes at Tabors Estate, Great Baddow, and (b) approximately 2,435yd. of 6in. and 1,490yd. of 4in. asbestos-cement pressure pipes from Butts Green, Sandon, to East Hanningfield, and Three Compasses p.h. to Linkhouse Farm, West Hanningfield—G. J. Bardwell, Montrose, Cold Norton, Chelmsford, (a) £2,890 and (b) £10,068, respectively.

Durham.—Reinforcement of water mains in the Durham city area for Durham County Water Board. A. C. Wildsmith, chief engineer—Direct Labour, £63,000.

Newmarket, Suffolk.—Provision of additional water softening plant at Newmarket General Hospital for East Anglian Regional Hospital Board—Norris Warming Co., Ltd., Burley House, Theobalds Road, London, W.C.1, £1,470 (recommended).

North Devon.—Construction of a reinforced concrete water tower to contain 10,000-gallons at Thorn Moor, near Stibb Cross, in the parish of Buckland Brewer, at a point approximately seven miles s.s.w. of Bideford (contract 102) for the North Devon Water Board. A. S. Bateman, chief

engineer—Gray, Conoley and Co., Ltd., The Docks, Falmouth, Corn., £2,679.

Rushden, Northants.—Ditchford scheme (contract 7) for Higham Ferrers and Rushden Water Board, including the laying of about 700yd. of concrete intake ducts in water-bearing gravels, and the construction of reinforced concrete storage, treatment and filter tanks, together with administration building and access works for a water treatment plant with a capacity of 750,000 gallons per day, at Rushden. Binnie, Deacon and Gourley, engineers, Artillery House, Artillery Row, Westminster, London, S.W.1—Kotter and Heron, Ltd., Northampton, £93,357. Work commencing Feb.

West Bromwich, Staffs.—Cold water services at Hallam Hospital for the Birmingham Regional Hospital Board—Saunders and Taylor, Ltd., 23 Hall Street, Birmingham, 18, £5,540 (recommended).

Woodbridge, Suffolk.—Provision of additional water reservoir at St. Audry's Hospital, Melton, for East Anglian Regional Hospital Board—Direct Labour, £2,880 (recommended).

HARBOURS, PIERS AND SEA DEFENCE WORKS

Ramsgate, Kent.—Cliff protection works at West Cliff Chine for B.C.—C. Jenner and Son, Ltd., 5 Bouvierie Road East, Folkestone, £4,848 (recommended, subject to Ministry approval); Bowzell, Ltd., £5,913; J. W. Ellingham, Ltd., £6,100.

HEATING AND VENTILATING

Wolverhampton, Staffs.—Block storage heating at 1 Bath Road for the Birmingham Regional Hospital Board—Unit Electrical Installation Co., Ltd., 3 High Street, Wednesday, £1,024 (recommended).

Wycombe, Bucks.—Installation of hot-water systems in the following houses for R.D.C.: 1-12 Marlow Road, Stokenchurch; 1-14 16-24 New Road, Stokenchurch; 1-6 Green Lane, Radnage; 1-12 Fords Close, Bledlow Ridge; 1-2 The Scrubbs, Bledlow Ridge; 1-8 Panleigh Cottages, Ditchfield, Lane End; 1-8 Louches Lane, Naphill; 2-6 Stocking Lane, Hughenden; 1, 2, 4-6 Upper North Dean—D. T. Attewell and Co., Ltd., 44 Crediton Road, Kensal Rise, N.W.10, £2,074; Farrels (Contractors), Ltd., 9 Russell Street, Leek, Staffs., £2,871; W. J. Lee, 10 Eastfield Road, Aylesbury, £887.

HOUSING SCHEMES

Batley, Yorks.—Thirty-six houses, 12 flats, garages and roads for second stage of Batley Central Area redevelopment scheme for B.C.—George Wimpey and Co., Ltd., £84,000.

Birmingham.—One hundred and seventy-nine dwellings at Bunbury Road estate for City Council—W. J. Whittall and Son, Ltd., 13 Lancaster Street, Aston Cross, Birmingham, 4, £481,740.

Bridport, Dorset.—Fourteen houses, two blocks of eight flats, four shops with two flats above and eight garages at Skilling housing estate for B.C.—Selleck Nicholls and Co., Ltd., Hill House, East Hill, St. Austell, Corn., £40,794 (recommended).

Cockermouth.—Twenty houses and four bungalows at Dearham for R.D.C.—Thomas Armstrong, Ltd., Cockermouth, £35,330.

Consett, Dur.—Sixty houses for U.D.C. E. Simpkin, surveyor—Direct Labour.

Doncaster, Yorks.—Following for R.D.C. J. A. Williams, surveyor: 54 Houses at Stripe Road, Rossington, and 46 at Holly Bush Lane, Kirk Sandall—T. Coggon and Co., Ltd., Pipering Lane, off Watch House Lane, Doncaster, £70,013 and £60,658, respectively.

Fourteen houses at Campsell Park, Campsall—R. Dunkerley and Co., Ltd., 9 Highfield Road, Doncaster, £18,846.

Downpatrick, Down.—Erection of the following for R.D.C.: 18 houses at Dundrum and eight dwellings, nine lock-up garages and 30 external stores at Killyleagh—John Graham and Sons, Kilkeel, £24,700, and M'Grady Bros., Downpatrick, £14,250, respectively.

Gosport, Hants.—Erection of a two-storey block of flats on the site of the Water Police Quarters at Trinity Green for B.C.—Basford and Sons (Contractors), Ltd., Northwoods, Fareham Road, Gosport, £32,849 (recommended, subject to Ministry approval).

Great Yarmouth, Norfolk.—Conversion of house at entrance to form two flats for married doctors at Northgate Hospital for East Anglian Regional Hospital Board—R. G. Carter, Ltd., Drayton, Norwich, £1,576 (recommended).

Hartley Wintney, Hants.—Four flats at Rectory Road, Hook, and four at Dilly Lane, Hartley Wintney, for R.D.C.—Spear and King, Ltd., 84 Gordon Road, Camberley, Surrey, £5,786, and Pool and Sons, Hartley Wintney, £5,596, respectively (subject to Ministry approval).

Havant and Waterloo, Hants.—Sixty-eight dwellings, comprising 42 houses, one block of eight flats and 18 bungalows, at Cunningham Road, Boyle Crescent, Hamble Lane, and Anne Crescent, Waterloo, for U.D.C.—Messrs. Faulkners, 113a London Road, Waterloo, Portsmouth.

King's Lynn, Norfolk.—Three additional houses for medical staff at St. James' Hospital for East Anglian Regional Hospital Board—W. Rudd, Ltd., Middleton Road, Leziate, King's Lynn, £6,958 (recommended).



Lambeth.—Nine four-storey blocks of maisonettes, two two-storey blocks of flats of the balcony access type and one two-storey block of the terrace type at Fenwick Place for L.C.C.—Wilson Lovatt and Sons, Ltd., 16 Grosvenor Crescent, London, S.W.1, £638,224.

Leatherhead, Surrey.—Pair of police constables' houses, with outbuildings, garages and an office, at Guildford Road, Great Bookham, for Standing Joint Committee—C. Neal and Son, Ltd., East Lane, West Horsley, Leatherhead, £8,041.

Norwich.—Following for East Anglian Regional Hospital Board: new bungalow for registrar at Hellesdon Hospital—A. R. King, Layby House, Saxlingham, Thorpe, £3,440; two pairs semi-detached houses for medical and senior nursing staff at Little Plumstead Hospital—T. Gill and Son (Norwich), Ltd., Hall Road, Norwich, £21,606 (recommended).

Rochester, Kent.—Thirty-eight houses and 42 garages, Warren Wood redevelopment, stage 5, for City Council. James A. Peel, city surveyor—T. R. Swann and Sons, Ltd., Staplehurst Road, Sittingbourne, £68,562. Work about to commence.

Romford, Essex.—Two storey blocks of flats at Fairholme Avenue, Carlton Road, Marlborough Road and Carter Drive for B.C.—L. and S. Builders (Brentwood), Ltd., 36 Cromwell Road, Brentwood, £17,715 (recommended).

Southwell, Notts.—Ten houses, Staythorpe Road, Rolleston, for R.D.C. M. England, architect and surveyor—Morris, Oldfield and Co., Ltd., Canal Road, Worksop, £20,384. Work to commence at once.

Spennymoor, Dur.—Thirteen houses at Byers Green and 16 at Tudhoe Moor for U.D.C. G. H. Gray and Partners, architects, Camden Street, North Shields—Bell and Ridley, Ltd., North Road, Durham (subject to Ministry approval).

Strood, Kent.—Eight bungalows at the Gravel Pit Cottages site, Stoke, for R.D.C.—G. A. Rattray, Saddington Street, Gravesend, £12,762.

MATERIALS AND SUPPLIES

Rowley Regis, Staffs.—Supply of screeded steel reinforced edge 3in. woodwool roof slabs for the central depot at Waterfall Lane for B.C.

—Woodcemair, Ltd., Group Works, Pembridge, Leominster, Herefs, £4,620 (recommended).

PLANT AND MECHANICAL TRANSPORT

Belfast.—Supply of thrust boring machine for City Council—The Hydraulic Engineering Co., Ltd., Chester.

Epsford, Middx.—Supply of nine street orderly trucks for B.C.—Stanley Engineering Co., Ltd., 17 The Avenue, Egham, Surrey, £4,923, (recommended).

Rochford, Essex.—Supply of the following for R.D.C.: (a) One track appliance with hydraulic dozer blade and diesel engine, fitted with cab; (b) two Karrier refuse vehicles with double cabs and Rootes two-stroke diesel engines—(a) Donald Denoon (Motors), Ltd., 1 Rainford Road, Chelmsford, £2,327, and (b) Holmes and Smith, Ltd., 459 London Road, Westcliff-on-Sea, £6,360.

Rowley Regis, Staffs.—Supply of a weighbridge at the central depot for B.C.—W. and T. Avery, Ltd., Soho Foundry, Birmingham, 40, £1,494 (recommended).

PLAYING FIELDS, PARKS, ETC.

Kensington.—Reinstatement of Cardinal Vaughan Playing Field for L.C.C.—E. Doe and Sons (Contracts), Ltd., Ongar, Essex, £2,509.

Peterborough.—Construction of running track on river embankment for City Council—En-Tout-Cas Co., Ltd., Syston, Leicester, £5,976 (recommended).

Weston-super-Mare, Som.—Construction of a recreation ground at Byron Road, for B.C. J. R. Freer-Hewish, borough engineer and surveyor—W. L. Bell, Woolavington, Bridgwater, £2,704 (accepted); Meadows, Ltd., £2,873; The Cradlin Co., Ltd., £3,533; W. E. Chalke and Co., Ltd., £4,442; Maxwell M. Hart, Ltd., £4,566; En-Tout-Cas Co., Ltd., £4,573. Work to commence March.

RAILWAY ENGINEERING

British Railways.—Following contracts placed: Eastern Region:

Supply of one Coles Aeneas mobile diesel-electric crane for Central Goods Depot, Grimsby—Steel's Engineering Pro-

ducts, Ltd., 143 Sloane Street, London, S.W.1.

Supply and erection of electrical installations at Billericay station and goods shed and Wickford station—Christy Bros., Ltd., 171 Broomfield Road, Chelmsford, Essex.

Reconstruction of outside inspection pits, alterations to drainage, provision of new oil interceptor and pumphouse erection of new walkway and other works at diesel maintenance depot, Lincoln—Wm. Wright and Son (Lincoln), Ltd., Park Street, Lincoln.

Construction of single-storey platform buildings and canopy on island platform and ancillary buildings to the west of the station at Colchester—Joseph Moss and Son, Ltd., St. Helena Works, St. Helena Road, Colchester.

Provision of staff accommodation at Moor Road, Wath Yard—J. Dixon (Doncaster), Ltd., Greenfield Lane, Balby, Doncaster.

Supply of five 3-ton mobile cranes—R. H. Neal and Co., Ltd., Norwich Union Buildings, City Square, Leeds.

Construction of reinforced concrete ramped approaches to footbridge 218 at Leigh-on-Sea—A. and C. Barvis, Ltd., Manor Works, Church Road, Thundersley, Essex.

ROADS, BRIDGES AND SITE WORKS

Braintree and Bocking, Essex.—Resurfacing of approximately 15,000 super. yd. of county and district roads with dense bituminous slag macadam and bitumen gravel macadam for U.D.C. M. R. Richards, engineer and surveyor—Road Reconstruction (Contracting), Ltd., 106 Gold Street, Wellingborough, £4,263.

Epsom and Ewell, Surrey.—Completion of street works and provision of footpaths at Ruxley Farm housing estate for B.C.—W. H. Gaze and Sons, Ltd., 19 High Street, Kingston-upon-Thames, £14,910 (recommended, subject to Ministry approval).

Felixstowe, Suffolk.—Construction of approximately 5,400 sq. yd. of reinforced concrete carriage way slab, together with kerbing, concrete footpaths, drainage, street lighting and other ancillary works, at Walton Avenue for U.D.C. Stirling, Maynard and Partners, 8 Station Chambers, Peterborough, consulting engineers—Roadworks (1952), Ltd.



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Ipswich, £20,160 (accepted); W. and C. French, Ltd., £22,658; Rogers Bros., Ltd., £22,826; J. Nunn and Son, £23,696. Work commencing Feb.-March.

Gosport, Hants.—Making-up of Anglesea Road, Chester Crescent, York Crescent (part), Gosport Road (part), Ryde Place and Wootton Road, Lee-on-the-Solent, and construction of a surface water sewer at Portsmouth Road, Lee-on-the-Solent, for B.C.—Philip Trant, Hollybank House, Hythe, Southampton, £26,363 (recommended).

Halesowen, Worcs.—Widening of Furnace Lane for B.C.—Ward and Birks & Co., Ltd., 66 Wolverhampton Road West, Bentley, near Walsall, £7,261 (recommended).

Harrogate, Yorks.—Surfacing of the carriageways of Parliament Street for B.C.—Trinidad Lake Asphalt (North West) Co., Ltd., India Buildings, Water Street, Liverpool, 1, providing and laying base course asphalt at 73s. per ton, wearing course asphalt at 6s. 4d. per sq. yd., all materials, as laid, being subject to measure (recommended). Total cost of works estimated at £1,840.

Hazel Grove and Bramhall, Cheshire.—Making-up and completion of Vaudrey Drive and The Boulevard, Hazel Grove, for U.D.C. J. Fleming Andrew, engineer and surveyor—Nortons Road Constructions, Ltd., Macclesfield. Work to commence next month.

Kirby, Lancs.—Construction of County Road—Hornhouse Lane, comprising approximately 830yd. of highway, overall width 80ft., and the provision of a roundabout, 180ft. diameter, plus a further short stretch of new road, approximate length 130yd., for U.D.C.—Wellington Excavating and Haulage (Liverpool), Ltd., East Prescot Road, Knotting Ash, Liverpool, 14, £56,838.

Leamington Spa, Warwicks.—Repair of roads and pathways at Weston Hospital for the Birmingham Regional Hospital Board—John Hadfield and Sons, Ltd., 2 Hartopp Road, Birmingham, 8, £1,473 (recommended).

Luton, Beds.—Making-up Rosslyn Crescent (part) and a further stage of improvements to the High Street, Leagrave, for B.C.—C. H. Linton, Ltd., 80 Victoria Street, St. Albans, Herts., £3,331, and C. Firbank and Son, Ltd., Dallow Road, Luton, £5,144, respectively.

Northern Ireland.—Construction of Belfast South Approach Road, including three bridges, and four miles of roadworks between Lisburn Road, Dunmurry, and Sainfield Road, Lisburn, contract 103. Sir William Halcrow and Partners, consulting engineers, Stanhope House, 47 Park Lane, London, W.1.—Sir Alfred McAlpine and Son, Ltd., Finaghy Road North, Dunmurry, Belfast, 10.

Peterborough.—Improvement of Star Road for City Council—A. H. Lewis and Co., Spring-

field, Carrington Road, Spalding, £11,471 (recommended).

Romford, Essex.—Resurfacing of Collier Row (part) for B.C.—General Asphalt Co., Ltd., 116 Grafton Road, London, N.W.5, £1,937 (recommended).

Rowley Regis, Staffs.—Following for B.C.: Final surfacing of the carriageways at Corngreaves Hall estate and Tividale Hall estate—W. Prestwich, Ltd., Sheffield, £3,439 (recommended, subject to Ministry approval).

Reconstruction of the City Road—Droitwich Construction Co., Mortehoe, Springfield Park, Wombourne, Wolverhampton, £40,674 (recommended).

Scunthorpe, Lincs.—Improvements to the junction of Scotter Road and Ferry Road for B.C.—J. E. Churchill, Poplar Farm, Bottesford, Scunthorpe, £5,773 (subject to M.T. approval).

Sheerness, Kent.—Extension of Barton's Point Road to urban boundary for U.D.C. K. Scott, engineer and surveyor—A. H. Hooker and Sons, Ltd., Leeds, near Maidstone, £7,607 (accepted); Benstead (Contractors), Ltd., £7,660; Arnold and Nathan, Ltd., £9,213; Johnson Bros. (Aylesford), Ltd., £9,307. Work about to commence.

Wednesbury, Staffs.—(a) Provision of asphalt base course and surfacing, and (b) the formation of the foundations of the crossings for the making-up of Southern Way for B.C.—(a) Limmer and Trinidad Lake Asphalt Co., Ltd., Trinidad House, Coventry Street, Birmingham, 5, £960; and (b) Risdale and Parker, Ltd., Bagnall Street, Tipton, £416 (recommended).

Weston-super-Mare, Som.—Following for B.C. J. R. Freer-Hewish, borough engineer and surveyor: Ebdon Road, new cemetery (contract 1), comprising roadworks, sewers and hardstanding for car park, etc.; and (2), comprising the preparation and seeding of site and the provision of land drainage—(contract 1) Western Asphalt and Tar Paving Co., Ltd., Westbury Court Road, Westbury - on - Trym, Bristol, £4,857 (accepted); Tarpaving (Winchester), Ltd., £5,080; Lawson Construction (Cheltenham), Ltd., £5,638; Robert Hobbs and Co., £5,796; K. H. Smith and Co., Ltd., £7,489. (2) W. L. Bell, Woolavington, Bridgwater, £1,482 (accepted); Meadows, Ltd., £1,886; En-Tout-Cas Co., Ltd., £2,324; Robert Hobbs and Co., £2,475; Tarpaving (Winchester), Ltd., £2,593; K. H. Smith and Co., Ltd., £4,846. Work to commence March.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Beeston and Stapleford, Notts.—Extensions and modifications to sewage disposal works at Bessell Lane for U.D.C., comprising new

screening chambers, grit channels, pumping stations, balancing tank, settlement tanks, filter beds, humus tanks, digestion tanks, sludge drying beds, pipelines and ancillary works on site. Elliott and Brown, consulting engineers, Stanley House, Pelham Road, Nottingham—Lane Bros., Ltd., Hermitage Lane, Mansfield, £176,762 (accepted); Lilworth Contractors, £179,930; Holloway Bros., Ltd., £194,015; Hy. James, Ltd., £195,905; J. Cochran and Sons, Ltd., £210,267; E. Thompson, Ltd., £214,153; Bosworth and Wakeford, Ltd., £225,996; Wilson Lovatt and Sons, £241,116; Thos. Bow, Ltd., £268,000.

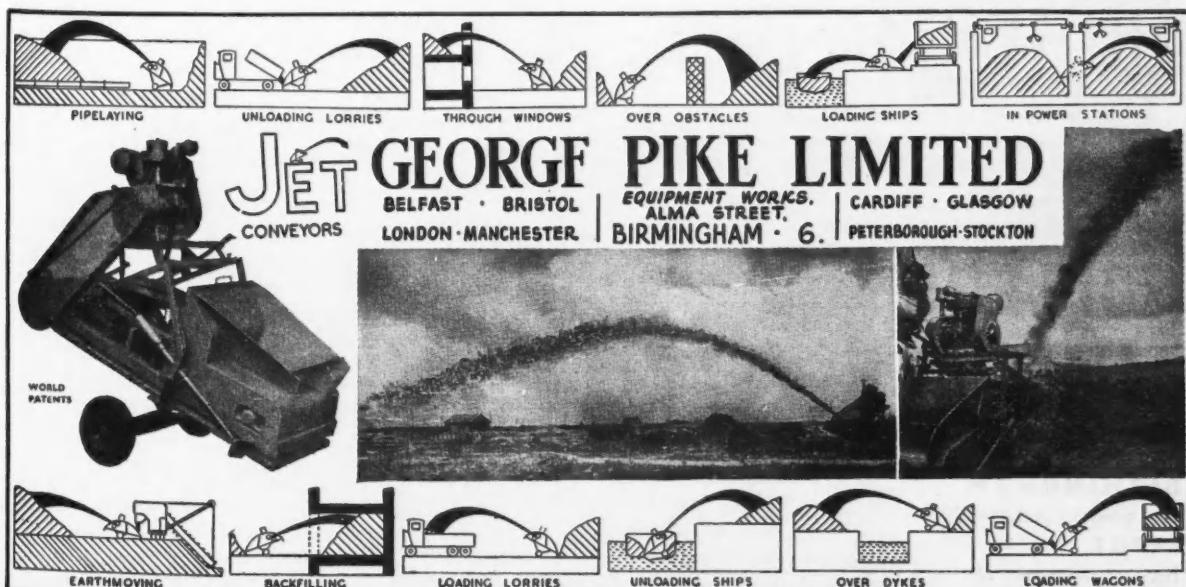
Bournemouth, Hants.—Construction of a new sewage disposal works at Holdenhurst, near Bournemouth, for B.C., including four primary tanks, in concrete, two secondary tanks, an aeration tank, one filter and two pump houses—Tarmac Civil Engineering, Ltd., Ettingshall, Wolverhampton. Estimated cost £300,000. Work commencing March.

Burton Latimer, Northants.—Laying, in fields, of 2,200yd. of 6in., 9in., 12in., 18in. and 21in. diameter concrete tube sewers, together with manholes, at Bridle Road housing site for U.D.C. Pick, Everard Keay and Gimson, consulting engineers, 6 Millstone Lane, Leicester—P. Holyoak and Co., Finedon, Northants. £12,518 (accepted, subject to Ministry approval); H. A. Garrod, Ltd., £13,165; Crawshaw, Robbins and Co., Ltd., £13,442; Kottler and Heron, Ltd., £15,062; Stirton Partners, Ltd., £16,213; Willmorite, Ltd., £17,786; F. W. Underwood, £17,915; Tierney and Maguire, Ltd., £18,606.

Evesham, Worcs.—Harvington sewerage scheme for R.D.C., comprising laying approximately 1,000yd. of 6in. and 9in. soil sewer, with necessary manholes and other incidental works, and for the construction of a sewage disposal works—Woodlands (Worcestershire), Ltd., Fair Pools Farm, Evesham (recommended).

Dorchester.—Supply of 4in. Barrington pump for the new permanent pumping station at the southern area housing site for B.C.—Tuke and Bell, Ltd., Lichfield, Staffs., £907 (recommended).

Halstead, Essex.—Construction of the Birdbrook-Baythorne End sewerage and sewage disposal works for R.D.C., comprising the construction of about 600 lin. yd. of 6in. glazed stoneware pipe sewer and manholes, pumping station, sewage disposal works and house connections at Baythorne End in the parish of Birdbrook—D. and H. (Contractors), Ltd., Regent Street, Cambridge, £11,246 (accepted, subject to Ministry approval); R. W. Hill and Co., Ltd., £11,708;



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W. and C. French, Ltd., £15,434; F. R. Hipperson and Son, Ltd., £17,331.

Hambledon, Surrey.—Alterations and additions at Frensham sewage disposal works for R.D.C., comprising the construction of a horizontal flow settling tank in mass concrete; the replacement of 149 cu. yd. of media in a filter bed, together with ancillary works. F. Parsons, engineer and surveyor—Watts Brothers Co., Ltd., Moulsham Copse Lane, Yateley, near Camberley, Surrey, £1,144 (accepted); Austen Shrikes, Ltd., £1,558; A. E. Farr, Ltd., £1,644; Surface Maintenance Services, Ltd., £1,384.

Hatfield, Herts.—Construction of the Welham Green relief sewer for R.D.C. W. J. Davis, engineer and surveyor—M. Keane and Sons, Ltd., 72 Lenham Road, Sutton, Surrey, £1,468. Work to commence February.

Loughborough, Leics.—Construction of a sewer from Westbridge Forest Road to Valley Road for B.C.—Clayton Bros., 13 Kings Avenue, Loughborough, £3,487 (recommended).

Maidstone, Kent.—Supply and installation of sludge digestion tanks and ancillary equipment at Aylesford sewage works extensions, contract M.7, and pumping plant at the sludge pumping station at Allington, contract M.12, for B.C.—Dorr-Oliver Co., Ltd., Abford House, Wilton Road, London, S.W.1, £27,473, and Sigmund Pumps, Ltd., 106 Terminal House, 52 Grosvenor Gardens, London, S.W.1, £4,150, respectively (recommended).

Narberth, Pembs.—Construction of the Llantidewi Velfrey sewerage scheme for R.D.C.—Young Bros. and Lewis, Ltd., The Ashes, Clynderwen, Pembs., £15,549.

Newcastle upon Tyne.—Supply of steel pipes for Denton Road-Broadmead Way sewer for City Council—Stewart and Lloyds, Ltd., Glasgow, £1,097.

Peterborough.—Following for City Council: Provision of a surface water sewer at Longthorpe—Midland Construction Co. (Birmingham), Ltd., 47 Lower Dartmouth Street, Birmingham, 9, £27,785; piping and fitting in of a section of Car Dyke from Newark Hill to the City boundary—Derek Crouch (Contractors), Ltd., The Lawns, Eye, Peterborough, £14,742 (recommended, subject to Ministry approval).

STREET LIGHTING

Belfast.—Vertical fluorescent street lighting lanterns and brackets for City Council—Atlas Lighting, Ltd., Upper St. Martins Lane, London, W.C.2.

Halesowen, Worcs.—Street lighting equipment for B.C.—Revo, Ltd., Tipton, £17,291 (recommended, subject to Ministry approval).

Luton, Beds.—Supply of 34 25ft. concrete street lighting columns for B.C.—Stanton Ironworks Co., Ltd., near Nottingham, £717.

Port Talbot, Glam.—Conversion from gas to electricity, Cwmavon Road, B.4286/Velindre and Springfield areas, Aberavon, for B.C.—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts.

GOVERNMENT CONTRACTS

Admiralty.—Particulars of contracts over £4,000 in value placed by Navy Works Department:

Dunbartonshire: housing—Dougal and Co., Ltd., Dunbarton.

Fife: construction of stores—Andrew Crocket, Ltd., Dunfermline; construction of offices—J. R. and A. Adam, Ltd., Lochgelly.

Dorset: construction of officers' block—Staverton Contractors, Ltd.

Air Ministry.—Contracts to the value of £4,000 or over for the week ended Jan. 13:

Building work: Gibraltar—Whatlings, Ltd., 10 Woodside Crescent, Glasgow, C.3; Middleton St. George, Darlington, Co. Durham—F. Shepherd and Son, Ltd., Blue Bridge Lane, York; Coningsby, Lincoln—A. Monk and Co., Ltd., P.O. Box 4 Stamford, Lincs.; Cranwell, Sleaford, Lincs.—William Wright and Son, Ltd., Park Street, Lincoln.

Artificers' work: Marham (Norfolk), etc. Walter Lawrence and Son, Ltd., Ventnor House London Street, Swaffham, Norfolk; Wittering (Northants), etc.—Bettles Building Co., Ltd., 80 Alma Road, Peterborough, Northants, Ballykelly, Limavady, County Londonderry—J. Kennedy and Co. (Contractors), Ltd., Society Street, Coleraine, Northern Ireland.

Heating services: Linton-on-Ouse, Yorks.—Richard Crittall and Co., Ltd., 151 Great Portland Street, London, W.1.

Ministry of Works.—Contracts placed for week ended Jan. 7:

Buckinghamshire: Post Office, Newport Pagnell—alterations and additions—H. H. Woolnough and Son, Ltd., 40 Harlestone Road, Northampton.

Cheshire: Automatic Telephone Exchange, Birkenhead—erection—Wm. Thornton and Sons, Ltd., 38 Wellington Road, Liverpool, 8.

Denbighshire: P.O. Sorting Office, Wrexham—erection of welfare and office block—Alun Edwards, Ltd., Cefn y Bedd, near Wrexham.

Durham: Newtown P.O., Manor Way, Peterlee—erection—Middleton and Co. (Sunderland), Ltd., Queen Alexandra Bridge Approach, Sunderland.

Lincolnshire: Crown Office Buildings, Scunthorpe—erection—Bernard Pumfrey, Wintern Works, Lea Road, Gainsborough.

London: British Museum—electrical switchgear and cables—Read and Partners, 28-32 Hatfields, Stamford Street, S.E.1.

Northamptonshire: Ministry of Pensions and National Insurance, 78 Westgate, Peterborough—improvement scheme—Clifford Jellings, Ltd., 90 Corden Street, Peterborough.

Yorkshire: Imphal Barracks York—alterations—Biscombe and Frith, Lawrence Street, York.

Post Office.—Contracts for duct laying, etc., works to the value of £4,000 and over placed during the week ended Jan. 14:

J. E. Billings and Co., Ltd., 54 Beddington Lane, Croydon, Surrey; A. R. Cleghorn and Co., Ltd., 34-36 Harvey Lane, Norwich, Norfolk; John O'Dea, Ltd., 145 Otley Old Road, Lawnswood, Leeds, 16, Yorks.; Alexander Thomson and Co. (London), Ltd., 45a Kensington High Street, London, W.8.

War Department.—Contracts placed for the week ended Jan. 6:

Dorset (Bovington and Lulworth): painting and decorating—P. J. Hartel (Southern), Ltd., Southampton.

Essex (Colchester): miscellaneous—C. H. Chaston, Ltd., Clacton-on-Sea.

Hampshire (Aldershot): building—Davies and Rentowl (Aldershot), Ltd., St. Albans; J. B. Edwards and Co. (Whyteleafe), Ltd., Kenley; electrical installations—Liberty Electrical Co., Ltd., London, S.W.19; (Farnborough): miscellaneous—E. J. Logan (Putney), Ltd., London, S.W.15.

London (N.W.7): building—Frank R. Freeman, Ltd., London, N.W.1.

Wiltshire (Salisbury Plain): electrical—South Wales Switchgear, Ltd., Blackwood, Mon.

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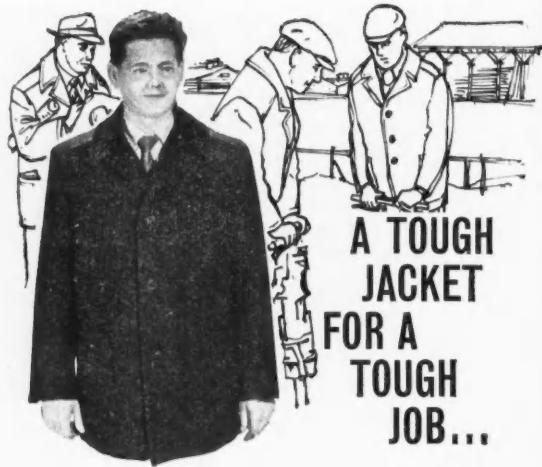


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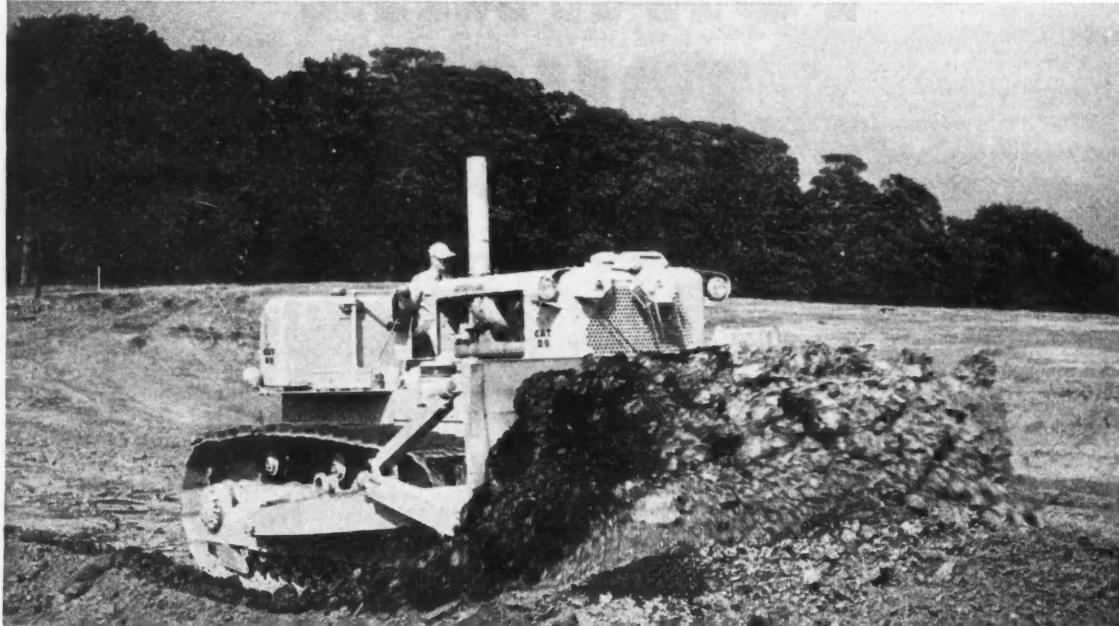
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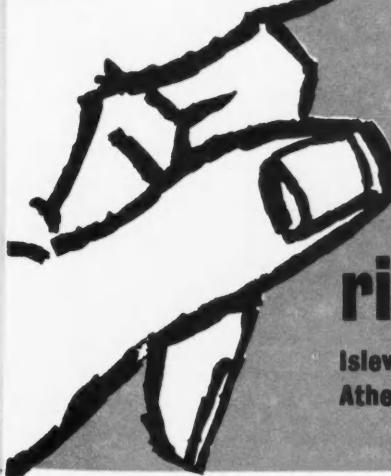
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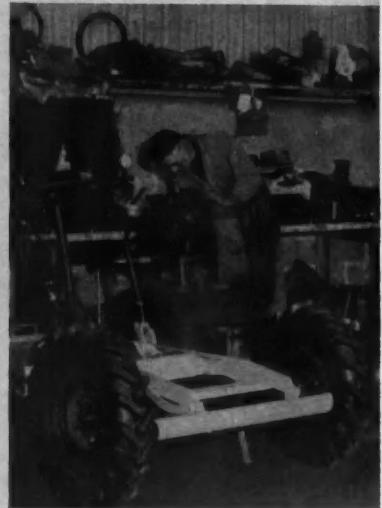
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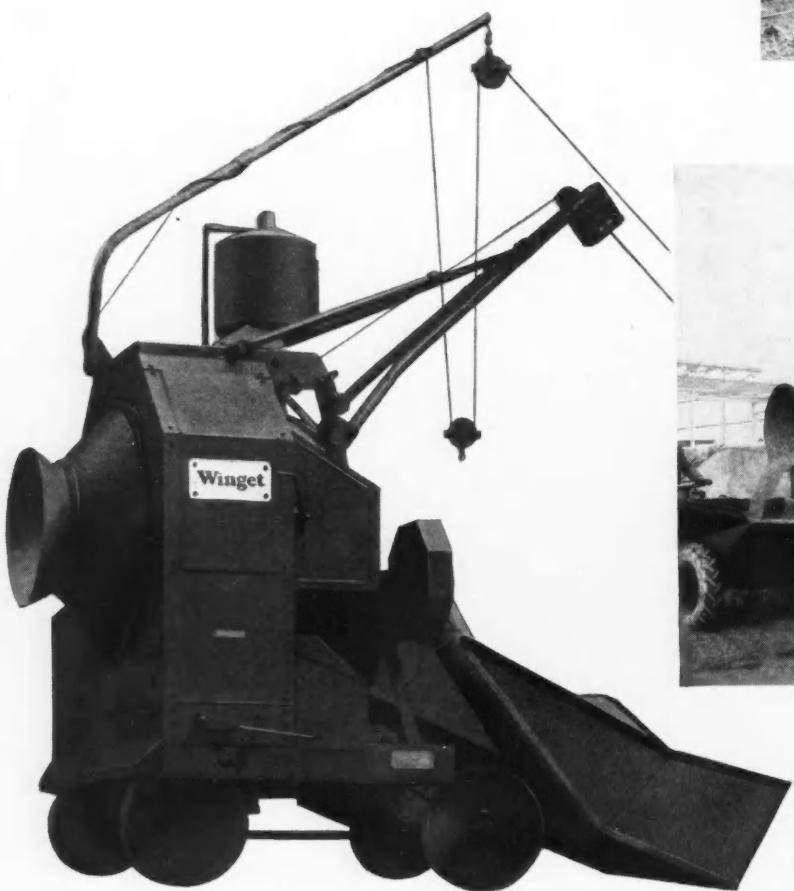
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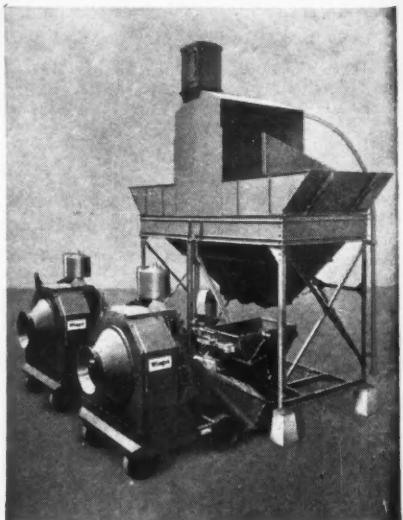
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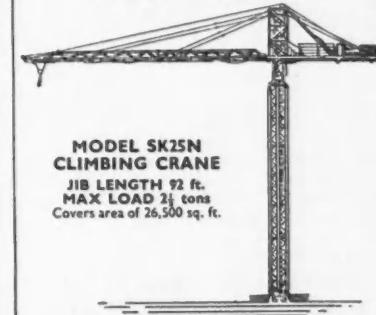
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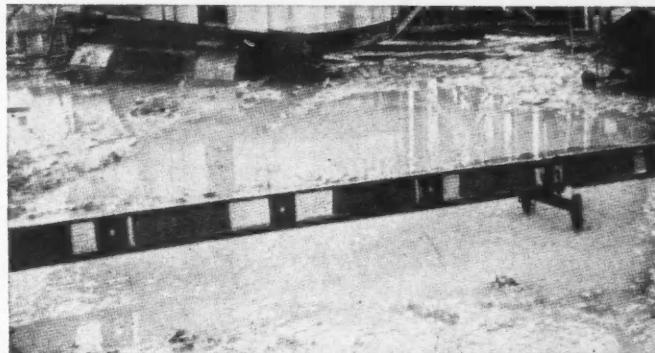
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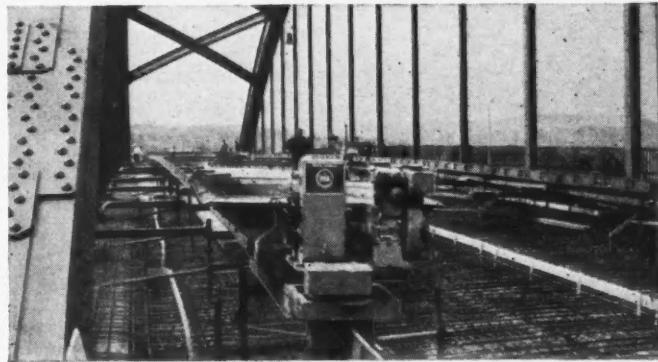
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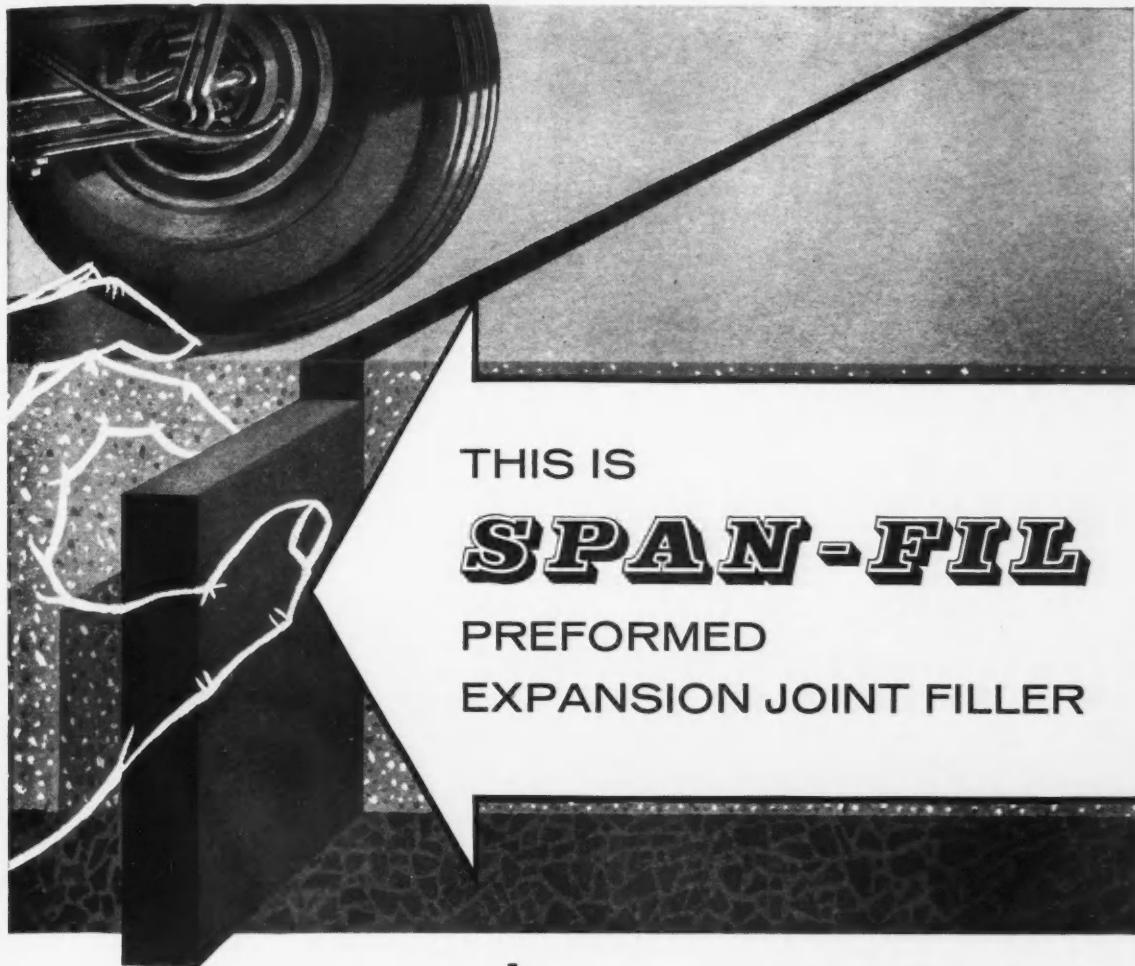
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What
Michigan's
mean to
Industry

3

Hall and Company Limited

All the production of Sandgate Park Pit, one of the thirty-two owned by Hall & Co. Ltd., of Washington, Sussex, depends on the Michigan 85A Tractor Shovel which they purchased 12 months ago. During that time the pit, which covers several acres, has been dug to a depth of 80 feet in one section and the output has been quite phenomenal. Not only has production been increased but it has also been made easier. In a pit of this sort there are all qualities of sand and one particular problem is colour. Under the old system it was not practical for the slow moving excavator to travel around the pit selecting the various qualities and colours of sand; it had to take it from the face as it came. Consequently a high percentage of processing was necessary. Whereas the Michigan is highly mobile, it can move around the pit and cut any quality or colour of sand to meet a builders requirements. Obviously this results in a great saving in time and money. The Michigan digs from the face of the pit and carries the sand over distances of between 100 and 300 feet to a centrally placed hopper. Over the 100 feet run, the Michigan is digging, carrying, then loading the hopper at a steady 2 cubic yards a minute. When digging from the hard face the driver uses the robust hydraulic power of the Michigan to drive the teeth vertically to the top of the face, skimming up to the ledge, and breaking away the overhang. This is done with hardly a pause between the forward motion of the empty shovel and reversing to carry back the load. Throughout the operation the machine is travelling around 10 miles per hour.

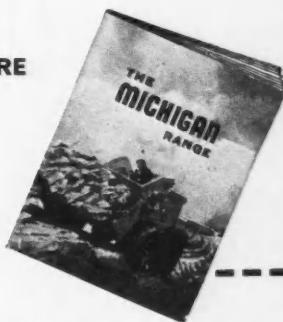
There's a saving in manpower, too, over the old method of working—no gangs of men, dumptrucks or excavators—simply the Michigan driver and the Hopper minder.

Since purchasing this first Michigan Tractor Shovel, Hall & Co. have increased their fleet to SEVEN—a proof that Michigan's lead in the field of earthmoving equipment.



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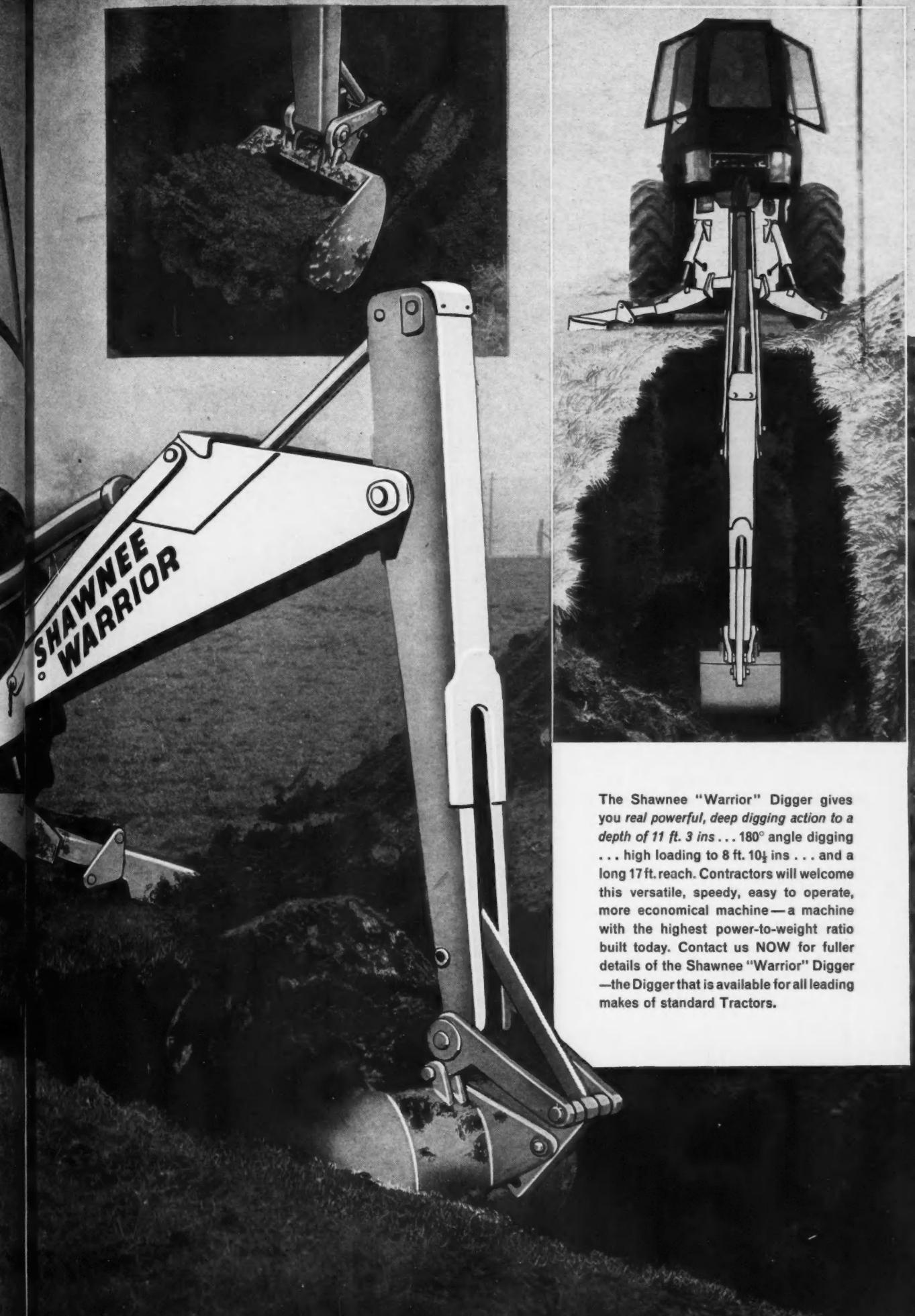
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“WARRIOR” DIGGER



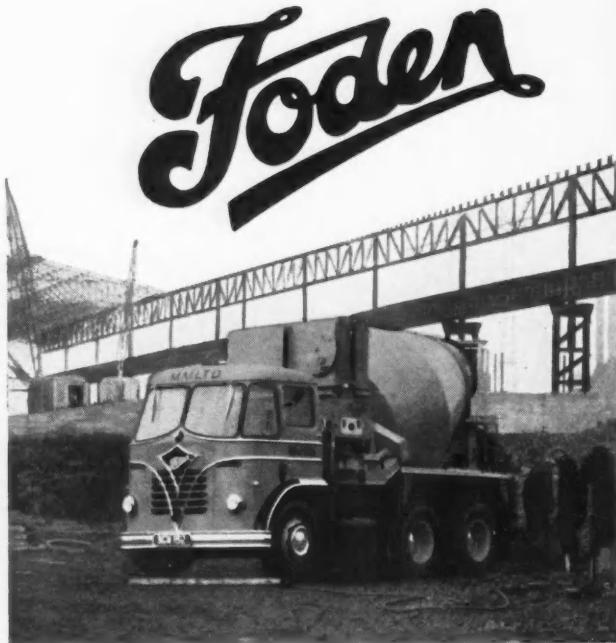
The Shawnee "Warrior" Digger gives you real powerful, deep digging action to a depth of 11 ft. 3 ins . . . 180° angle digging . . . high loading to 8 ft. 10½ ins . . . and a long 17 ft. reach. Contractors will welcome this versatile, speedy, easy to operate, more economical machine—a machine with the highest power-to-weight ratio built today. Contact us NOW for fuller details of the Shawnee "Warrior" Digger—the Digger that is available for all leading makes of standard Tractors.



Laying a solid

Three different types of Fodens were used by Messrs. Murdoch Mackenzie Ltd., the well known civil engineering contractors of Motherwell, in preparing foundations for the steel columns which will carry an overhead crane with a lifting capacity of over 100 tons at Colvilles' new strip mill at Ravenscraig, Motherwell.

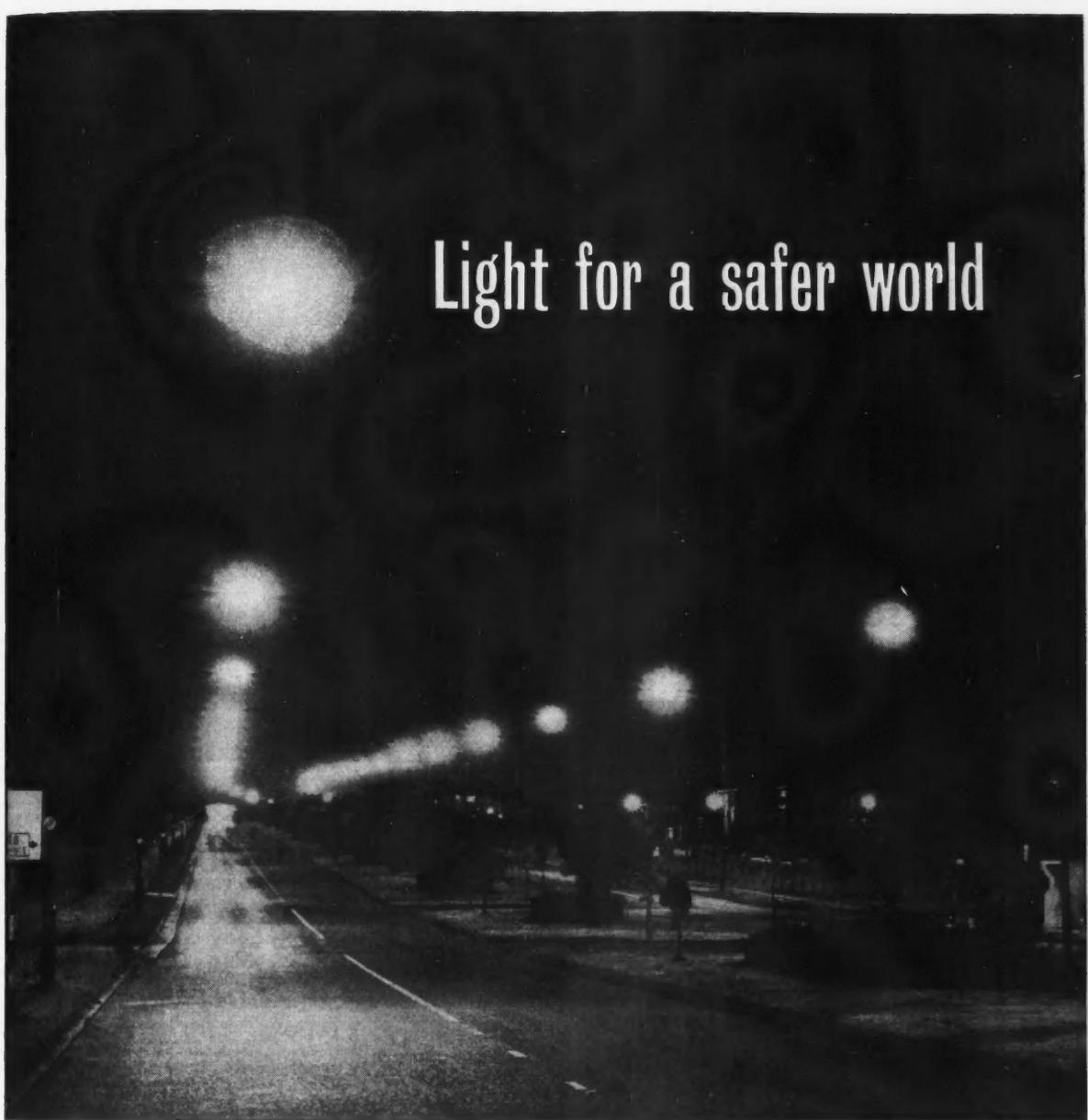
The drilling rig above drilled holes 60 ft. deep by 3 ft. 6 in. diameter and these were then filled in by the concrete mixer shown below, a 6 cu. yd. capacity model by Messrs. Stothert and Pitt Ltd. mounted on a Foden 6 wheeled chassis. On the right is one of the Foden dump trucks used to clear the site.



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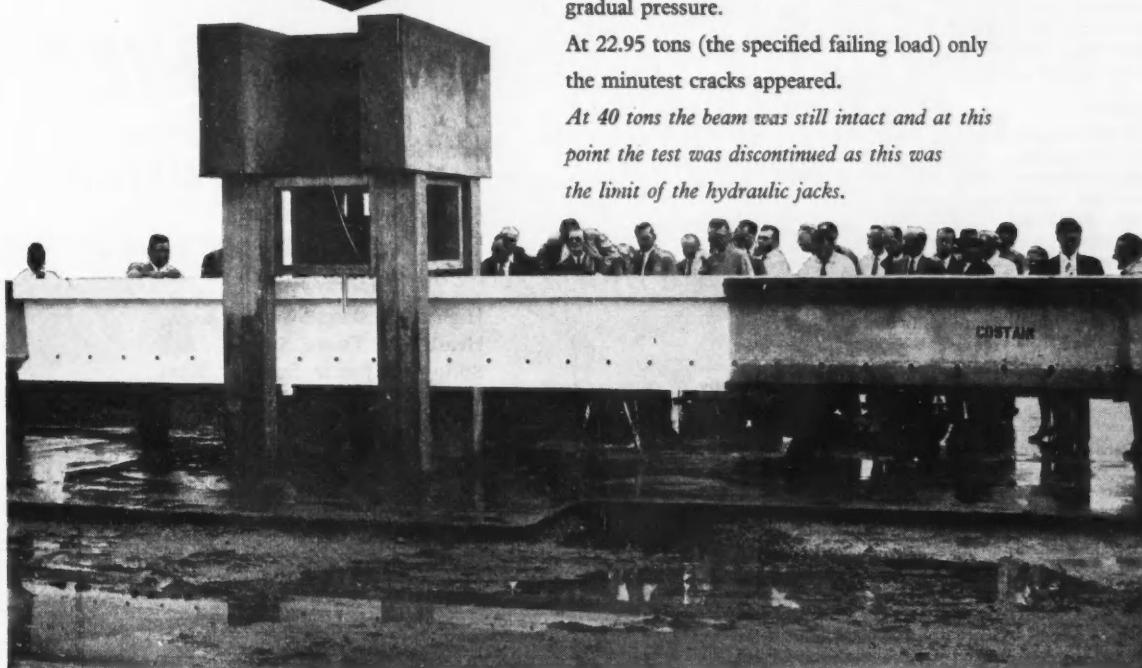
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for the 163 prestressed concrete beams being used in the construction of the fly-over bridge at Beatrice Road, Salisbury. Each beam is 51' 6" long and the central point load applied by the Jack equivalent to the design load on each beam is 8.75 tons.

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Chief Engineer of City of Salisbury Mr. W. J. Jarvis.
Contractors: Richard Costain (Africa) Limited, Salisbury.

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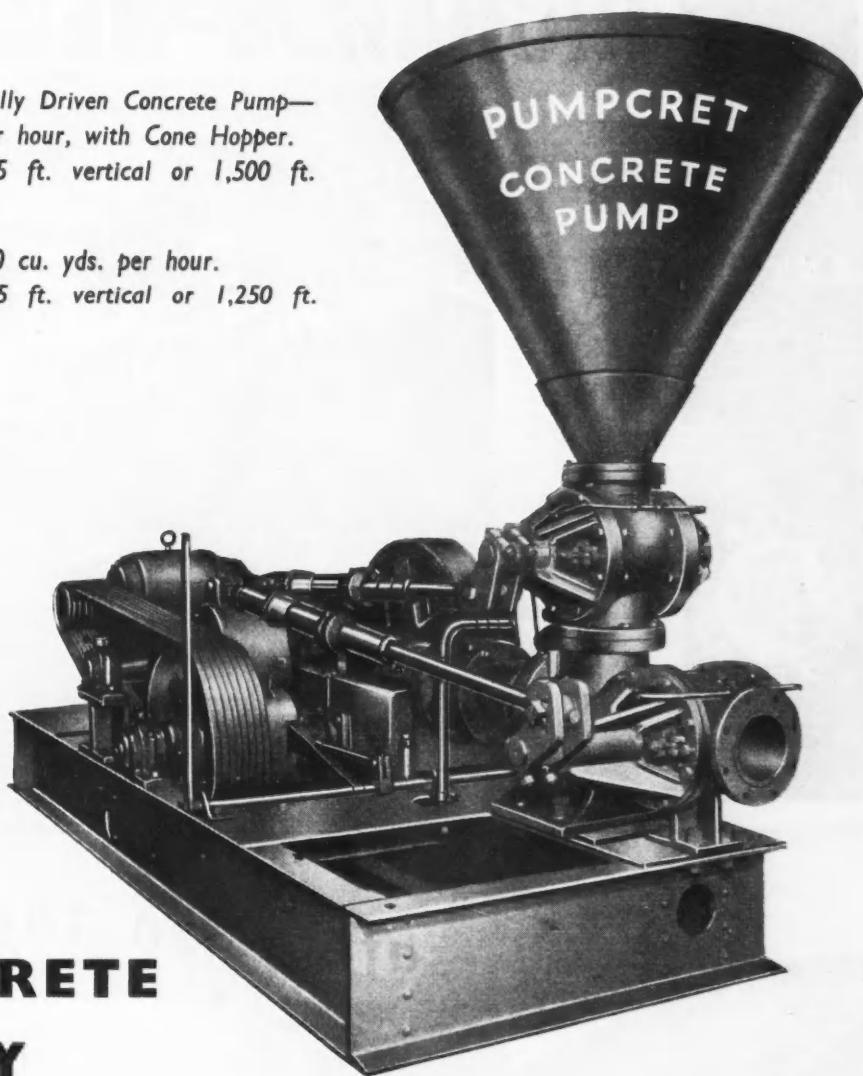
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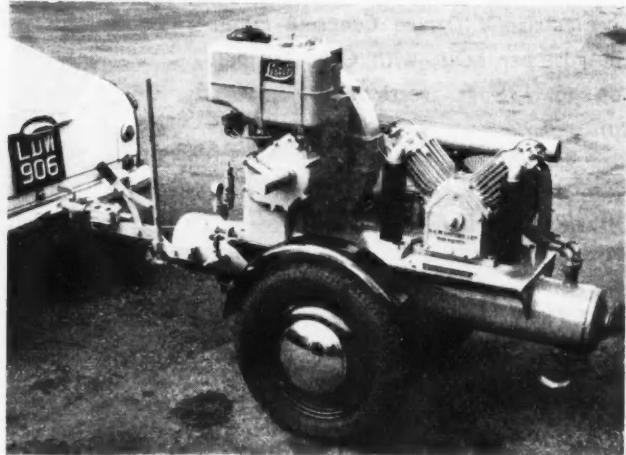
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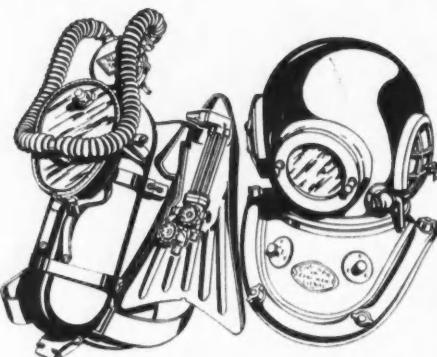
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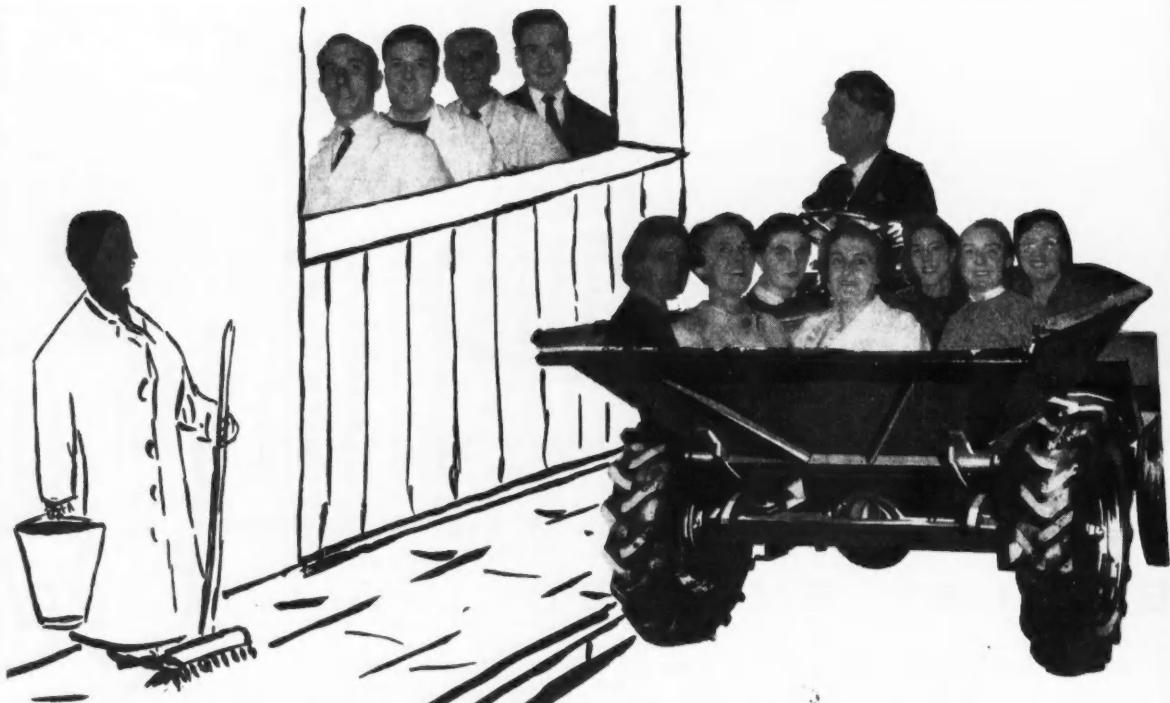
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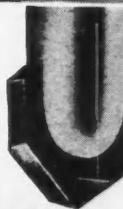
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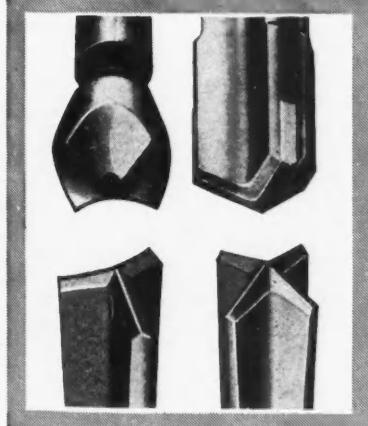


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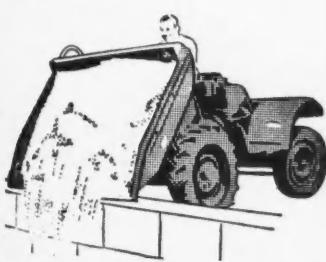
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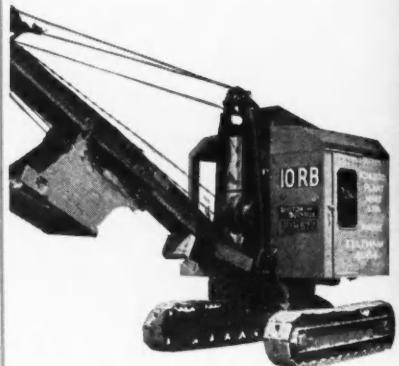


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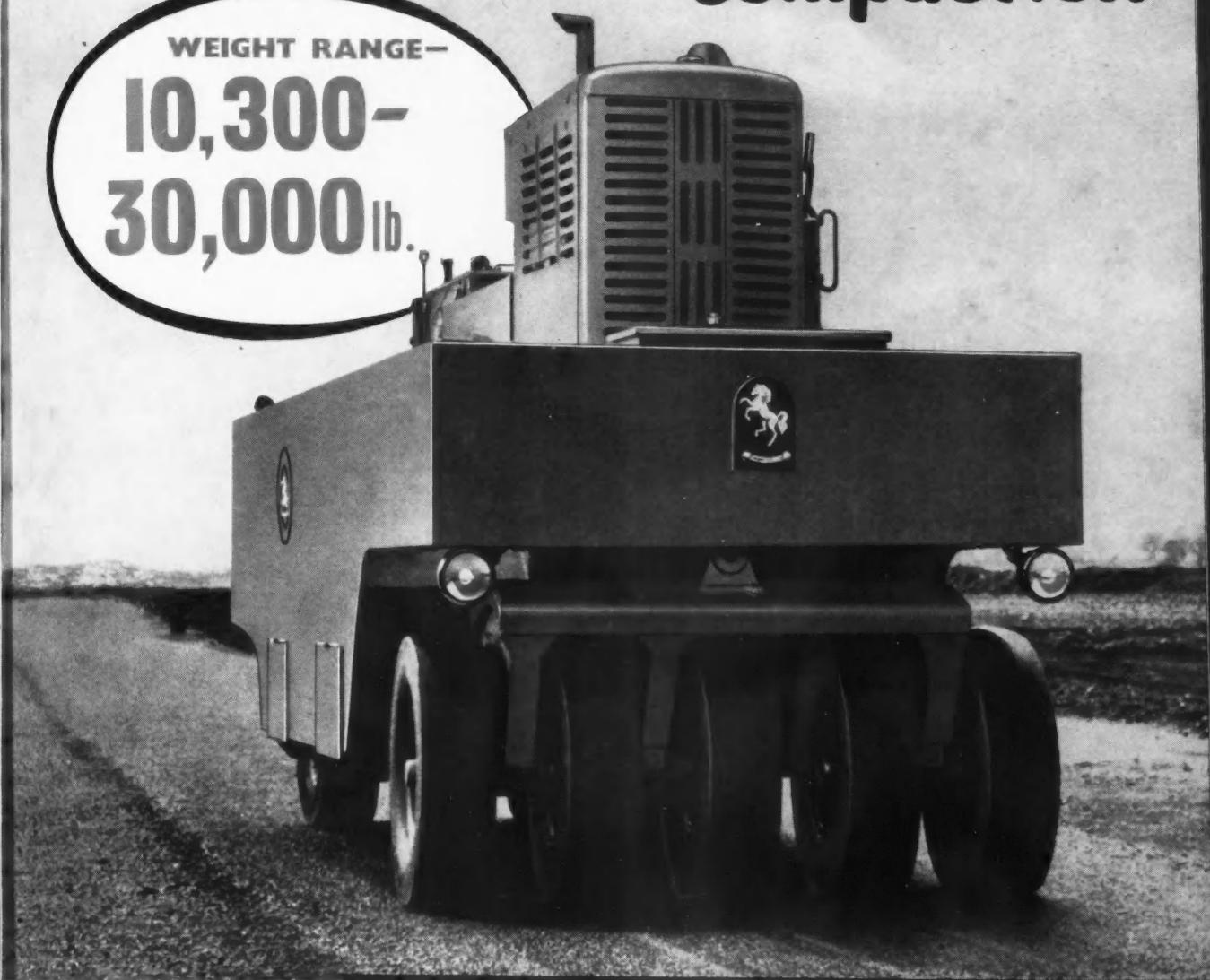
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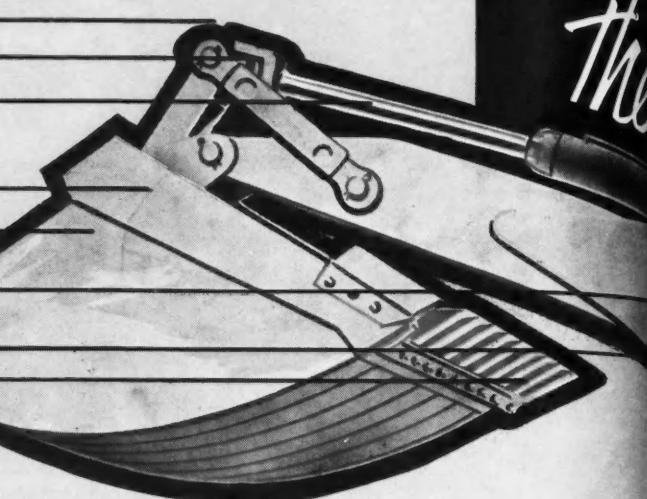


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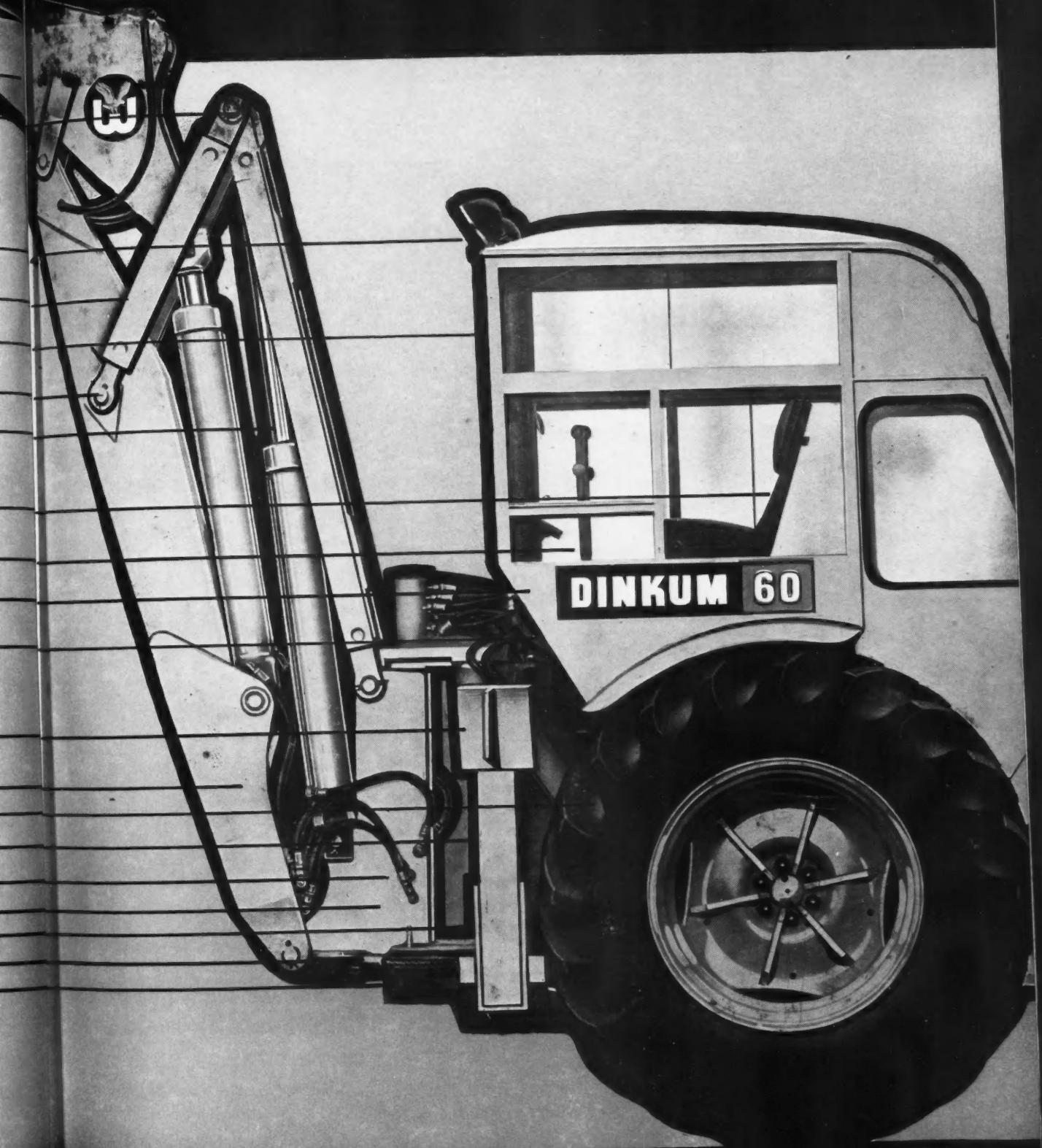
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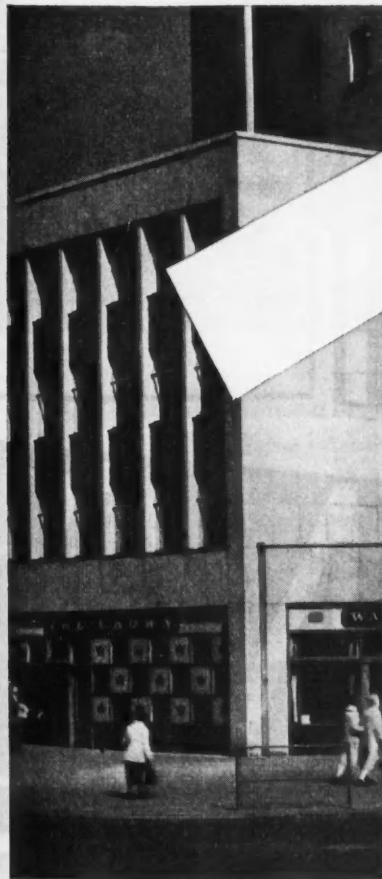


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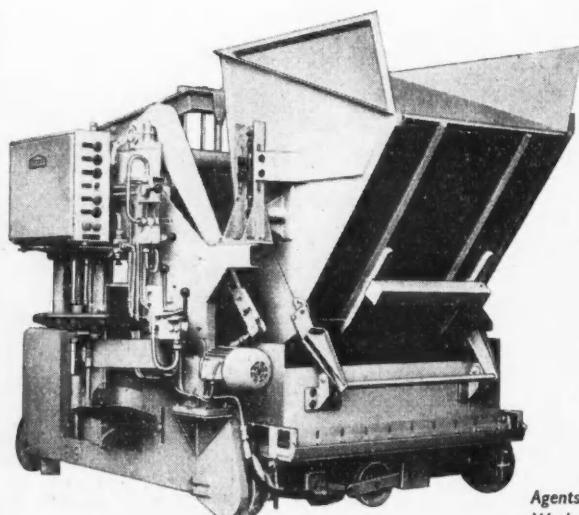


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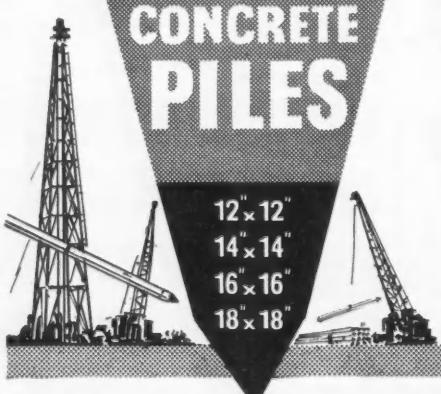
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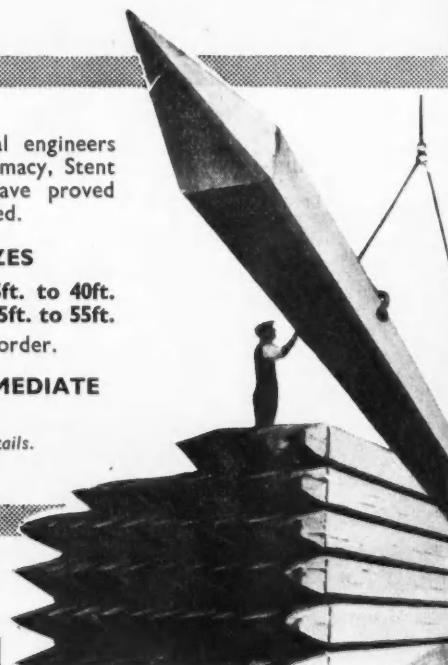
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BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes; coarse and fine sand, 16/21 and wet/mix; large output; reliable deliveries.
HILTON GRAVEL, LTD., Hilton, Darby. (Tel.: Etwell 422.) Also at Mercaston. (Tel.: Brailsford 316.) And at Willington. (Tel.: Repton 2274/5.)
HOVERINGHAM GRAVEL CO., LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 4/6 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)
KEYLIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385-386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.
SALISBURY AND WOOD, LTD., Matlock (Tel.: 272/273). Limestone and granite, dry or coated gravel and sand, kerbs, slabs, blocks, posts, reconstructed and natural stone; lime and ground limestone, lightweight aggregates, ashes, red shale.

DERBYSHIRE

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) (For details, see Staffs.)

DORSET

BULL BROS., S. and L., LTD., 126A High Street, Winchester (Tel. 2264). (See Hampshire.)
DANGERFIELD, F. J., & CO., LTD., 261A Finchley Rd., London, N.W.3. (Tel.: HAMPstead 8044/8.) For all road aggregates, kerbs, sets. (See London.)
DORSET LIMESTONES, LTD., Bumbers Lane, Easton, Portland, Dorset. (Tel.: Portland 2207/8.) Tarred and bituminous macadam, foundation materials, limestone for all purposes and to all gradings. Portland stone aggregates and Portland capstone aggregated for reconstructed stone. By road and sea.
HALL AND CO., LTD., 8 Commercial Road, Parkstone. (Tel.: 5379.)

MOREYS (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggin, path gravel.

ESSEX

ALRESFORD SAND AND BALLAST CO., LTD., Alresford Creek, near Colchester, Essex. (Tel.: Wivenhoe 341/494.) Pits at Alresford Creek, Brightlingsea. Stoke-by-Nayland, Bures, and Hockwold. All grades of washed shingle, concreting sand and building sand. Road and water transport.
BAKER, F. AND E., LTD., 73 High Road, Rayleigh, Essex. (Tel.: Rayleigh 1031/2.) Pits at Great Totham, Heybridge and West Tilbury. All grades of washed material supplied and delivered; also hardcore ashes and bricks.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

BUCBRICKS COMPANY, LTD., Sand and Ballast Pits, Martells, Ardleigh, Colchester. (Tel.: Ardleigh 310.) All grades of washed aggregates, sand, building sand, asphalt, grit. Sterilised dry sand accurately graded to buyers' requirements.

DANGERFIELD, F. J., & CO., LTD., 261A Finchley Rd., London, N.W.3. (Tel.: HAMPstead 8044/8.) For all road aggregates, kerbs, sets. (See London.)

FERRIS PITS, LTD., The Limes Garage, Fencible Road, Barking, Essex. (Tel.: Hainault 5271/2-3001/2.) Pits at Ossett, near Stanford-le-Hope, and Umminster. All grades of washed aggregates, plastered and unplastered sand, supplied and delivered; also hardcore and ashes.

HALL AND CO., LTD., Manor Road, Romford. (Tel.: Romford 4232/1.) Pits at Upperton, Boreham and Linford, near Grays. Gravel aggregates, concreting, plastering and building sand.

HUNNABLE, F. A. AND SON, LTD., Rayne Road, Braintree, Essex. (Tel.: Braintree 151 and 1511.) Gravel, washed stone, sand, and selected washed concreting sand and washed soft building sand. Classified sand for asphalt. Ready mixed concrete to all grades. Pits at Braintree, Bocking, Beasley End, Hedingham and Alphamstone.

LEIGH BUILDING SUPPLY CO., LTD., Head Office: 956 London Road, Leigh-on-Sea, Essex. (Tel.: 7826/5-7827/8.) All sizes washed materials, building sand, hardcore, ashes, bricks, granite.

PETERS AND BARHAM, LTD., 309 South Street, Romford. (Tel.: Romford 44141—7 lines.) Washed and crushed gravel, all sizes; sand Pits at Asheldham, Chignall St. James, Dagenham, Great Waltham, North Ockendon, Roxwell, West Thurrock.

PINCH, F. A. AND A., LTD., Upper Rainham Road, Pinch, near Hornchurch, Essex. (Tel.: Hornchurch 48912/3/4.) Haulage, all aggregates and excavation.

READ, P. T., LTD., Fairlop Airfield, Forest Road, Ilford. (Tel.: Hainault 6111/2/3.) High-grade sands, ballast and shingles supplied and delivered; also ready-mixed concrete.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 241/2/3/4 and 5/6.) Pits at St. Ives and Gosfield, near Halstead, near Halstead.

STANWAY CONTRACTS, LTD., Upper Edwards Hall, Eastwood, Southend-on-Sea. (Tel.: Eastwood 55161.) Sand and gravel pits at Rochford and Woodham Walter. Graded aggregates supplied or delivered.

WIVENHOE SAND, STONE AND GRAVEL CO., LTD., Wivenhoe, near Colchester, Essex. (Tel.: Wivenhoe 231.) High-quality washed aggregates of all grades.

GOLOCESTERSHIRE

BENGRY AND SONS, LTD., Longmoor, Kingsland, Newminster, Herefordshire. (Tel.: Kingsland 201/4.) (See Herefordshire.)

COKE, T. F., (CHELTENHAM), LTD., 267 Gloucester Road, Cheltenham. (Tel.: Cheltenham 4717/4874.) Sand, graded gravel aggregates, hardcore, limestone, chippings, tarred and bituminous limestone, concrete blocks, fence posts, etc.

CROMHALL QUARRIES, LTD., Cromhall, Wotton-under-Edge, Gloucestershire. (Tel.: Fairfield 546/7.) Concrete aggregates pre-graded in large quantities. Tarmacadam, tarpaving, bituminous macadam and asphalt to B.S.S. for hand or machine laying.

FLOYD AGATE AND CO., LTD., Sherston, Malmesbury, Wilts. (Tel.: Sherston 237.) Cotswold building stone, hardcore, etc. (Details under Wiltshire.)

GRIFFITHS AND SONS, LTD., Churchdown 3135 and 2216. Pit, quarry and dredger owners. All grades and types aggregate materials.

HALL AND CO., LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel aggregates, concreting, plastering and building sand.

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Gloucestershire. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, road stones, and Dolomitic media.

TAYMAC, LTD., Wootton Bassett, near Swindon, Wilts. (Tel.: Wootton Bassett 391—5 lines.) Cotswold stone, hardcore, washed and graded aggregates, building sand.

Rates for insertion in this GUIDE will be forwarded on application

CONTRACTORS' GUIDE TO AGGREGATES

GLoucestershire

WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: Coleford 3158/9.) Tarred and bituminous limestone macadams, asphalt, concrete aggregates, dolomitic media, engineering, facing and common bricks for all purposes. Delivery road or rail.

Hampshire

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.) **BULL BROS. S. AND L., LTD.**, 126A High Street, Winchester. (Tel.: 2264.) Concreting aggregates (reconstituted, pit-mixed, weighbatched to meet any specification); also ballast, hoggin, path gravel and sand from own pits at Fawley, Lockerley, Ringwood, Romsey, Swan and Totton.

DANGERFIELD, B. F. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: Hampstead 8044/8.) For all road aggregates, kerbs, sets. (See London.)

HALL AND CO., LTD., Baltic Wharf, Marine Parade, Southampton. (Tel.: Southampton 21234), and at Portsmouth. Pits at Ringwood, Highbridge and Fawley. Gravel aggregate, concreting, plastering and building sand.

HASKINS, G. AND SONS, Queen Street, Emsworth. For washed sand and graded aggregates, path and road gravel, hoggin, clinker, ashes. (Tel.: Emsworth 2274.)

MORSEY (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, path gravel, etc.

NEW MILTON SAND AND BALLAST CO., LTD., Lympstone Road, New Milton, Hants. (Tel.: 37 and 566.) Guaranteed uncrushed, washed, screened and graded concrete aggregates. All sizes. Washed sand and fine sands.

PRIVETT, W. G., AND SONS, LTD., Drayton Lane, Portsmouth. (Tel.: Gosport 70059.) Concrete aggregates, building sand, hoggin, ashes, washed and graded filter media, etc.

RALPH OF BASINGSTOKE, LTD., 37 Kempshott Lane, Basingstoke, Hants. (Tel. 85.) Concrete aggregates, building sand, path gravel, hoggin, etc.

TWICKENHAM GRAVEL CO., LTD., Ship Lane, Farnborough (Tel.: 1126); Sandhurst Road, Yateley (Tel.: 2230).

WESSEX SAND AND GRAVEL CO., LTD., 126 Hillside Avenue, Southampton. (Tel.: 56616.) Pits at Romsey and Fair Oak. Concrete aggregates, hoggin, building sand, etc.

Herefordshire

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 3014.) Suppliers of all grades of crushed concrete aggregates, road metalliferous, pitching stone, hardcore and coated macadam.

CLEE HILL TRANSPORT AND ROLLING CO., LTD., Ludlow, Salop. (Cleehillstone 284.) (See Shrops.) **NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) All grades of tarred and bituminous macadam, roadstone chipping and concrete aggregates, etc.

OLD RAONOR TRADING CO., LTD., Kington (Tel.: 421.) Granite and limestone aggregates, coated macadam, concrete products.

SALOP SAND AND GRAVEL SUPPLY CO., LTD., Admaston, Wellington. (Tel.: 961.) Salop.

WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: 3158/9.) (See Gloucestershire.)

Hertfordshire

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: Hampstead 8044/8.) For all road aggregates, kerbs, sets. (See London.)

EASTWOODS SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Bourbourn pit. (Tel.: Hoddesdon 2456.) Producers and distributors of all grades of washed aggregates.

GARFIELD, C., LTD., Petergate Lane, Enfield, Middx. (Tel.: Hertford 4351/2/3.) Washed aggregates and building sand. Pits at Hertford and Enfield.

HALL AND CO., LTD., Railway Yard, Orchard Road, Stevenage. (Tel.: 775.) and at Hatfield. Gravel aggregates, concreting, plastering and building sand.

HARTIGAN, G. F. X., LTD., (See Buckinghamshire.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/213/4.) (See Huntingdonshire for details.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 317.) and Doulton, Faringdon, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, roadstones, and Dolomitic media.

TWICKENHAM GRAVEL CO., LTD., Eleanor Cross Road, Waltham Cross. (Tel.: 23588.)

WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353) (night). (See Camb.)

WINFIELD HENRY LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208 9.) Pits at Hemel Hempstead, Watford, West Hyde, Rickmansworth. Concrete aggregates, hoggin, building sand.

Huntingdonshire

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

FERRERS AND AGGREGATES, LTD., Northampton Road Quarries, Rushden (2354/5). (See Northants.)

GRAVEL PRODUCTS (HUNTS.), LTD., Little Paxton, St. Neots, Hunts. (Tel.: St. Neots 308.) Pits at Little Paxton, St. Neots, Hunts.; and Blunham, Beds.

NENE BARGE AND LIGHTER CO., LTD., Market Chambers, Peterborough (Tel.: 5534/5), and Ship End Quarries, Wansford, near Peterborough (Tel.: Wansford 1515.) Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/213/4.) Producers of all grades of washed sand and gravel. Ready mixed concrete. Precast concrete of every description.

Huntingdonshire

WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353) (night). (See Camb.)

KENT

BRASSTED SAND PITS, Brassteds, Kent. (Tel.: 586.) London Office: 10A Ellen Street, S.E.15. (Tel.: New Cross 5337.) Soft and plastering sands, lime and sand-mix dry, hardcore, S.H. bricks, ashes, etc.

BROWN BROS. (SITTINGBOURNE), LTD., Chalkwell Road, Sittingbourne, Kent. (Tel.: Sittingbourne 5350.) Soft and plastering sands, lime and sand-mix dry, hardcore, S.H. bricks, ashes, etc.

CLUBB, J., LTD., Dartford, Kent. (Tel.: Dartford 25431.) Pits in North Kent, Medway area and Sevenoaks district. All washed and crushed gravel aggregates, concreting and building sand.

DIAMOND TREAD CO. (1938), LTD., Ditton Court Quarry, Larkfield, near Maidstone. (Tel.: West Malling 3444.) Quarry owners, tarmacadam, bitumous macadam and dry roadstone suppliers. Ditton Court Quarry, Larkfield, near Maidstone, Kent. (Tel.: W. Malling 3444.)

HALL AND CO., LTD., Canning Street, Maidstone. (Tel.: Maidstone 51051); and at Folkestone and Hayes. Pits at Lunsford, near Larkfield, Riverhead. Gravel aggregates, concreting, plastering and building sand. Surecrete precision-mixed concrete.

HARRIS, M. P. AND CO., LTD., Station Road, Parkdene, Kent. (Tel.: 565.) (See Sussex.)

TILERY CONTRACTING AND DREDGING CO., LTD., Postley, Maidstone. (Tel.: Maidstone 5540/21/3.) Suppliers of tarred, bituminous and dry Kentish ragstone, sea walling, asphalt fillers, Scotch granite and kerbing.

Lancashire

BROOMBY'S, LTD., Sandgate, Milnthorpe (Tel.: 5251/2), Westmorland. (See Westmorland.)

BUCKTON QUARRY, Broken stone, all grades. (Tel.: Mossley 123.) Or write Main Road, Oldham.

CASTLETON SAND AND GRAVEL QUARRIES, LTD., Trows Lane, Castleton, near Rochdale. (Tel.: Castleton 57100.) Lee Quarries, Bacup. (Tel.: Bacup 287.) Washed pit sand, crushed washed stone aggregates; pitching stone.

CROFTON GRAVEL LTD., Cheadle, Stoke-on-Trent, Staffs. (Tel.: Tean 593.) Manchester Office: Blackfriars 3766/7. Plant capacity, 2,000 tons per day.

DUNNING AND SON, LTD., (See Shropshire.)

HARTLEY, JOHN W., LTD., Lundsfield Quarry, Carnforth, Lancs. (Tel.: Carnforth 100.) Large producer of highest quality washed sands, clean wash, natural, slabbed and crushed gravel aggregates for civil construction purposes.

HILTON GRAVEL LTD., Rice Street, Liverpool Road, Manchester, 3. (Tel.: Deansgate 5455 and 5456.) Quarries at Cheadle, Staffs. (Tel.: 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 3196.)

HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 281/4, 21 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., all sizes and gradings of crushed granite aggregate. Immediate delivery ex stock. Liverpool and Preston Depots: (Tel.: 2261/2/3.)

MANCHESTER DEPOT: (Office: Crambrook Road, Manchester, 15. (Tel.: Trafford Park 3830.)

TERM HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: 51/213/2/3.) (See Shropshire for details.)

TRENTHAM GRAVEL CO., LTD., Londres Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity: 2,000 tons per day.

WITHERS LIMESTONE LTD., Black Lane Quarry, Carnforth. (Tel.: Carnforth 327.) Graded limestone aggregate to B.S.S. all sizes. Immediate delivery ex stock.

X.L. GRANITE (INGLETON), LTD., Head Offices: Clapham, via Lancaster. (Tel.: Clapham 318/9.) Works Tel.: Ingleton 231. All sizes and gradings of Ingleton granite aggregate.

Leicestershire

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) Best Leicestershire granite, granite blocks and coated gradings to any specification, cold asphalt and wet mix. Prompt rail/road delivery.

CLIFFE HILL GRANITE CO., LTD., Markfield, near Leicester. (Tel.: Markfield 561/2/3.) Granite aggregates, B.S.S. All sizes. Tarred and bituminous granite concrete slabs and kerbs. Transit-mixed concrete.

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brikworth 278 and 298.) Duston 505.) (See Northamptonshire.)

ENDERBY AND STONEY STANTON GRANITE CO., LTD., New Walk, Leicestershire. (Tel.: 20891.) Quarries at Enderby, London Offices: 29 Dorset Square, N.W.1. (Tel.: Amb. 1141.)

HILTON GRAVEL LTD., Hemington Fields, near Shardlow, Derby. (Tel.: Shardlow 266.)

HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

MONTFORD AND CO. LTD., 21 New Walk, Loughborough. Quarries at Mountsorrel, near Loughborough. 1in. pink granite a speciality. London Office: 29 Dorset Sq., N.W.1. (Amb. 1141.)

WANLIP GRAVELS, LTD., Wanlip Road, Syston, Leicester. Any size or grading, scientifically balanced ballast. All to B.S.S. (Tel.: Syston 721 and 707.)

WRAKE VALLEY GRAVELS CO., LTD., Melton Mowbray. (Tel.: Pit-Rotherham 205 or head office Melton 2488.) All grades washed aggregates and sand, transit mixed concrete.

Lincolnshire

CONINGSBY SUPPLY CO., LTD., Registered Office: The Broadway, Woodhall Spa, Lincs. (Tel.: Woodhall 3150.) Screened limestone, hardcore, pitching, flint, hoggin. Ex quarries or delivered.

DOW-MAC (PRODUCTS), LTD., Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)

EAST MIDLAND BUILDERS' SUPPLY CO., LTD., Barton-in-the-Wolds, Barton-on-Humber, Lincs. (Tel.: Barton 2189.) All grades washed sand and gravel, roadstone, hardcore, washed silica sand.

GIBSONS, F. B., AND SONS, LTD., Registered Office: Welby House, Market Deeping, near Peterborough. (Tel.: Market Deeping 3321/2383.) Pits at Langtoft, near Peterborough. (Tel.: Market Deeping 2210.) All grades washed sand and aggregates.

HARTSHOUSE GRAVEL AND SAND CO., LTD., Hartshouse Wood, Doddington Road, Lincoln. Sole selling agents, Hartshouse Sales Ltd., 17 West Parade, Lincoln. (Tel.: Lincoln 23391.)

HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

PETERBOROUGH QUARRIES, LTD., Sandymead, Maxey, Peterborough. (Tel.: Market Deeping 2325—3 lines.) Quarry at Ropsley, all grades of hardcore and broken stone. (See also Northants.)

POLLARD, C. AND SONS LTD. (TILLINGTON), Pollard's Hole, Tillington, near Stamford, Lincs. (Tel.: Market Deeping 2140.) All grades washed sand and aggregates. For "Supercrete" ready mixed concrete. (Phone Market Deeping 3132.)

TRENTFORD GRAVELS, LTD., Head Office: Deansgrove, Grimsby. (Tel.: Grimsby 5354.) Washed and graded gravel and sand, roadstone, hardcore, slag, tarmac, ashes, etc. Pits and quarries throughout the county.

London

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BUCRICKS COMPANY, LTD., 57 Plaza Chambers, Covent Garden, London, W.C.2. (Tel.: Covent Garden 052.) All grades of washed sand and gravel, building sand, asphalt, grit. Sterilised sand accurately graded to buyers' requirements.

COX, H., AND SONS, LTD., 33 Southampton Way, Camberwell, S.E.5. (Tel.: Rodney 2215—3 lines.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: Hampstead 8044-8.) Granite limestone or slate, coated or dry, all sizes and pitching, granite kerb and sets, ferrals, quartz and other minerals by road or rail, or ex London stock.

DORSET LIMESTONES, LTD., Bumpers Lane, Easton, Portland, Dorset. (Tel.: Portland 2207/8.) (For details, see Dorset.)

DRINKWATER, W. W. (WILLESDEN), LTD., Dudden Hill, Willesden, London, N.W.10. (Tel.: GlAdstone 6400/5.) Pits: Rush Green, Denham, Bucks. (Tel.: Denham 2241/2/3.) Also Staines Road, Hounslow Heath, Middlesex. (Tel.: Hounslow 6222/3.)

GABRIEL, C. LTD., Palmers Lane, Enfield, Middlesex. (Tel.: HOWARD 4351/2/3.) Washed aggregates and building sand, sand and shingle, and sand and shingle supplied and delivered.

GREENHAM SAND AND BALLAST CO., LTD., Chertsey Road, Feltham. (Tel.: Feltham 2887/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

HALL AND CO., LTD., Chantrey House, Ecclesall Street, S.W.1. (Tel.: Sloane 7122.) At East Poplar, Poplar and Bowdsworth. Gravel aggregates, concreting, plastering and building sand.

HARTIGAN, G. F. X., LTD., Washed sharp sand to B.S.S. 882. (See Buckinghamshire.)

KEEN, W. J., AND SONS, LTD., 18 Granville Road, Epping, Essex. (Tel.: Epping 2520.) All sands, ballasts, shingles and hardcore supplied.

LONDON BALLAST CO., LTD., Paddington 5064.) 55A Porchester Terrace North, Paddington, W.2.

READ, P. T., LTD., Gales Gardens, Bethnal Green, E.2. (Tel.: Shoreditch 9128/9.) All sands, ballasts and shingles supplied and delivered; also ready mixed concrete. Pits: Fairlop Airfield, Forest Road, Ilford, Essex. (Tel.: Hainault 6111/2/3.)

SHAKERLY QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3191.) "Doura" Facing Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

Merionethshire

SALOP SAND AND GRAVEL SUPPLY CO., LTD., Admaston, Wellington. (Tel.: 961.) Salop.

Middlesex

CROSS, GEO. C., AND CO., LTD., Uxbridge Road, Southall. (Tel.: Southall 2264/5/6.) Concrete aggregates, hardcore, excavations, demolitions.

DRINKWATER, W. W. (WILLESDEN), LTD., Staines Rd., Hounslow Ht., Middx. (Hounslow 6222/3.)

GABRIEL, C., LTD., Palmers Lane, Enfield, Middlesex. (Tel.: HOWARD 4351/2/3.) Washed aggregates and building sand. Pits at Enfield and Hertford.

GREENHAM SAND AND BALLAST CO., LTD., Chertsey Road, Feltham. (Tel.: Feltham 2285/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

GRUNDY, S., 79 Marlington Road, Hillingdon, Middlesex. (Tel.: 1456.) Sand, ballast, shingle, hardcore, ashes, excavation and demolition.

HALL AND CO., LTD., Chantrey House, Ecclesall Street, S.W.1. (Tel.: Sloane 7122), and at Ashford and Brentford. Pits: Bedford and Shepperton. Gravel aggregates, concreting, plastering and building sand.

LONDON BALLAST CO., LTD., Paddington 5064.) 55A Porchester Terrace North, Paddington, W.2.

TWICKENHAM GRAVEL CO., LTD., Feltham Hill Road, Hanworth. (Tel.: Feltham 2638.)

READ, P. T., LTD., Gales Gardens, Bethnal Green, E.2. (Tel.: Shoreditch 9128/9.) All sands, ballasts and shingles supplied and delivered; also ready mixed concrete. Pits: Edmonton Gravel Pit, Montague Road, N.19. (Tel.: Shoreditch 9128/9.) and Fairlop Airfield, Forest Road, Ilford (Tel.: Hainault 6111/2/3.)

STUART MACEY, LTD., Gordon Rd., High Wycombe. (Tel.: High Wycombe 2591/2.)

CONTRACTORS' GUIDE TO AGGREGATES

MID-WALES

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)
NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)
OLD RADNOR TRADING CO., LTD., Quarries in Radnorshire. (Tel.: Kington 421.) (See Herefordshire.)
SALOP SAND AND GRAVEL SUPPLY CO., LTD., Admaston, Wellington (Tel.: 961), Salop.
TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

MONMOUTHSHIRE

MONMOUTHSHIRE ASSOCIATED QUARRIES, LTD., Head Office: 38 Chepstow Road, Newport, Mon. (Tel.: Newport 58311/2.) Suppliers of all grades of concrete aggregates, road metalling, pitching stone, tarmacadam and bituminous macadam in limestone, dolomite and blue pennant stone. Quarries throughout the county.
SHAKEMANTEL STONE CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)
WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: 3158/9.) (See Gloucestershire.)

MONTGOMERYSHIRE

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)
SALOP SAND AND GRAVEL SUPPLY CO., LTD., Wellington (Tel.: 961), Salop.

NORFOLK

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
JOHNSON, P. C. H., LTD., Station Road, Terrington St. Clement, near King's Lynn. (Tel.: Terrington St. Clement 248.) Washed and screened gravel, roadstone, washed sharp and fine sand.
ST. IVES SAND AND GRAVEL CO., LTD., 22 The Strand, St. Ives, Herts. (Tel.: St. Ives 2441 2/3/4 and Coney Weston 12.) Pits at St. Ives and Knettishall, near Thetford. Concrete aggregates, building sand.
NETTERTON STONE QUARRIES, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Pits at Netterton. Concrete aggregates, building sand.
THORPE GRAVEL PITS, LTD., Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) Washed and graded aggregates, stone and gravel delivered to all parts of Norfolk and Suffolk.

NORTHAMPTONSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 238.) Manufacturers and suppliers of all grades limestone tarmacadam, dry pitching stone, hardcore, etc.
BILLING GRAVEL CO., LTD., Station Road, Billing, Northampton. (Tel.: Cogenhoe 219.) London Office: 23 Berkely Square, W.1. (Tel.: Mayfair 6341.)
BRAYBROOK, E. W., LTD., Newton Road, Higham Ferrers, Northants. (Tel.: Rushmore 3344 and 3345.) All grades of washed and graded aggregates to B.S.S. building sand, hardcore.
DOW-MAC (PRODUCTS), LTD., Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)
DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 3.) Producers of building and walling stone, roadstone, broken stone, ashes, sand, gravel and hoggins. Immediate delivery throughout Northamptonshire.

FERRERSAND AGGREGATES, LTD., Northampton Road Quarries, Rushden, Northants. (Tel.: Rushden 2354/5.) Largest producers in the county of all grades of high-quality concrete aggregate to B.S.S. standards throughout Northamptonshire and adjoining counties.
GIBBONS, F. B. AND SONS, LTD., Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)
HOVERINGHAM GRAVEL CO., Hoveringham, Nottinghamshire. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

KETTON STONE CO. (Prop. Andrew's Garage), Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. **MACKNESS, A. J., LTD.**, Ransome Road, Northampton. (Tel.: Northampton 589.) Producers of all grades of washed aggregates. Building sand, mixtormix (lime sand mortar). Proven deliveries.
NEENE BARGE AND LIGHTER CO., LTD., Market Chambers, Peterborough (Tel.: 5534/5) and Sampson Quays, Winsford, near Peterborough (Tel.: Winsford 384/5). Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.
NEWARK (PETERBOROUGH) SAND AND GRAVEL CO., LTD., 27 Eastfield Road, Peterborough. (Tel.: Peterborough 420.) All grades washed and screened gravel and sand.
PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Eight quarries supplying all grades of hardcore and broken stone. Also Wetmix at Yarwell, Winsford. All grades gravel and sand at Maxey.
POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)
STORTON, F. E., LTD., Weedon Road, Northampton. (Tel.: Northampton 3358.) Producers of washed gravel and sand to B.S.S.

NORTH WALES

CAWOOD, WHARTON AND CO., LTD., Pistyll Gwyn Quarry, Llanarmon, near Mold. (Tel.: Llanarmon-yn-lal 27.) Crushed limestone and tarred macadam, all grades.
CHESHIRE AND NORTH WALES TARRED MACADAM CO., LTD., Llanarmon, near Mold. (Tel.: Llanarmon-yn-lal 43.) Hard, broken limestone; dry and coated to B.S.S. Inquiries to Registered Office—Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 88094.)

ENSTON BROS., Llwyn Isaif Quarry, Clynnogfawr, Caernarvon. (Tel.: Clynnogfawr 297/2.) All sizes crushed, washed natural sand and gravel. Highest quality Precast concrete products, ex our Griffith Crossing Factory, Caernarvon. (Tel.: Caernarvon 2535/6.) Crushed granite ex our quarry, Pengwern and Gwydr Quarries, Ltd., Trefriw, Llanrwst, Denbighshire. (Llanrwst 38.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., Quarries at Penmaenmawr (Tel.: 2256/8), and at Trevor (Tel.: Clynnogfawr 223), Caernarvonshire. All sizes and gradings of crushed granite aggregate. Any quantity per day immediate delivery ex stock. Collected granite also available.

RUTHIN AND DENBIGH TARMACADAM CO., LTD., (a member of the Lunt, Comley and Pitt Group), Denbigh. (Tel.: Denbigh 75.) Lime, limestone, carbonate of lime, tarmacadam, etc. Also inquiries to Ruthin Bros., Ltd., Gazette Buildings, 168 Corporation Street, Birmingham (Tel.: Central 7408), and Lunt Bros., Ltd., Stourbridge (Tel.: 210—8 lines).

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

NOTTINGHAMSHIRE

AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sands.
BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
GLEN QUARRIES, LTD., Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building sand, plastering sand and crushed gravel; could be collected ex quarry if delivered.

GUNTHORPE GRAVELS (1958), LTD., (Tel.: Nottingham 77357; and Works: Lowdham 2131.) (An associate company of C. Campbell, Ltd.) All grades washed gravel and sand to B.S.S.

HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham (Tel.: Lowdham 3171—15 lines.) Quarries at Hoveringham, Holme, Pierrepont, Colwick, Bleasby and Newark. All grades of washed gravel and sand to any specification. Crushed quartz for surface dressing of roads; a specialty. Plant capacity 8,000 tons per day.

NEWARK GRAVEL AND CONCRETE CO., LTD., Grove St., New Balderton, Newark, Notts. (Tel.: Newark 401.) All grades washed sand and aggregates.

NORTH NOTTS. GRAVEL CO., LTD., Bellmoor, Retford, Notts. (See Yorkshire.)
SALISBURY AND WOOD, LTD., Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

OXFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)
BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)
BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 238.) Manufacturers and suppliers of all grades limestone tarmacadam, dry pitching stone, hardcore, etc.
CURTIS, J. AND SONS, LTD., Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades of washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 441.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMPSTEAD 8048/4.) For all road aggregates, kerbs, setts. (See London.)
DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire.)

GRINDLE, S. (LIVERPOOL) LTD., Elweme, Oxon. (Tel.: Elweme 20.) London Office (Tel.: Uxbridge 4156.) All grades washed aggregates, Path hoggins, broken stone, building sand.

HALL AND CO., LTD., Cardiff Road, Reading. (Tel.: 50458.)

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone, Cotswold building and walling stone.

NETTERTON STONE QUARRIES, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Roadstone, Cotswold building and walling stone.

RADNORSHIRE

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)
CLEE HILL TRANSPORT AND ROLLING CO., LTD., Ludlow, Salop (Cleehillstone 284). (See Shrops.)
NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)
OLD RADNOR TRADING CO., LTD., Quarries in Radnorshire. (Tel.: Kington 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., LTD., Admaston, Wellington (Tel.: 961), Salop.

RUTLAND

GIBBONS, F. B., AND SONS, LTD., Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)

RUTLAND

HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
KETTON STONE CO. (Prop. Andrew's Garage), Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.

PETERBOROUGH QUARRIES, LTD., Sandymead, Peterborough. (Tel.: Market Deeping 2355.) Quarry at Greetham, all grades of broken stone and hardcore. (See also Northamptonshire.)
POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

SHROPSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes: coated limestone to B.S. B02 and 1621 and wet-mix; large output; reliable deliveries.

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

CLEE HILL TRANSPORT AND ROLLING CO., LTD., Ludlow, Salop. (Tel.: Cleehillstone 284.) Granite stone, tarmac, chippings, filter media, setts, limestone, crushed and walling stone, gravel, sand, hardcore and ashes.

DORRINGTON SAND AND GRAVEL QUARRIES, LTD., near Shrewsbury. (Tel.: Dorrington 276.) Supplies of ready mixed concrete, building sand, washed sand, washed and crushed gravel.

DUNNING AND SON, LTD., Haughton Quarry, near Shrewsbury. (Tel.: Upton Magna 286/7.) All grades of high-quality roadstone, concrete aggregates and coated macadam. All to B.S.S. Any tonnage available for immediate delivery.

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kington. (Tel.: 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., LTD., Admaston, Wellington (Tel.: 961), Salop.

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffordshire for details.)

TRENT HILL GRAVEL CO., LTD., Longmoor Quarries, Wirksworth, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity: 2,000 tons per day.

SOMERSET

ASHAM QUARRY CO., LTD., Chantry, Frome. (Tel.: Merton 351.) All sizes limestone block, broken and aggregates. Tarred and bituminous macadam to B.S. Ex quarry and delivered.

DANGERFIELD, F. J., & CO., LTD., 216A Finchley Rd., London, N.W.3. (Tel.: HAMPSTEAD 8048/4.) For all road aggregates, kerbs, setts. (See London.)

HALL AND CO., LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel, aggregates, concreting, plastering and building sand.

WALSHWICH, JOHN, AND CO., LTD., Shepton Mallet, (Tel.: Shepton Mallet 2366/7.) All sizes basalt, coated basalt, concrete aggregates, filtering media, building blocks and slabs.

SOUTH SCOTLAND

ESK MANUFACTURING CO., LTD., Carlisle. (Tel.: Carlisle 2-4941.) (For details see Cumberland.)

SOUTH WALES

HALL AND CO., LTD., 34 High Street, Narberth. (Tel.: 74.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., 18 Queen Street, Cardiff. (Tel.: 2064/597.) All sizes and gradings of crushed granite aggregate from our Cardiff and Swansea Dock Depots. Dolomite aggregates from Ewenny Quarry, Bridgend. (Tel.: Bridgend 3786.) Coated stone also available.

SESSONS AND SONS, LTD., West Dock, Cardiff. Owners: flag, hardcore, ashes, filling, graded and graded to British Standards. Branches: Newport and Cardiff. (See also Cardiff and Newport.)

SHAKEMANTEL QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SOUTH WALES SAND AND GRAVEL CO., LTD., Head Office: P.O. Box 8, Beaumaris Buildings, St. Asaph, Salop. (Tel.: Swanson 52771.) Washed sand, building merchants. Pennant Quarry owners: slag, hardcore, ashes, filling, graded clinker filter media. Depots: Cardiff, Newport, Barry, Port Talbot, Briton Ferry, Swansea, Llanelli.

STAFFORDSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes: coated limestone to B.S. B02 and 1621 and wet-mix; large output; reliable deliveries.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

CROXDEN GRAVEL LTD., Cheadle, Stoke-on-Trent. Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity 2,000 tons per day.

DUNNING AND SON LTD., Wood End Gravel Pits, Hedgesford. (Tel.: Hedgesford 302/325.) Washed sand and gravel. All to B.S. High-quality roadstone, concrete aggregates and coated macadam from our Haughton Quarry, near Shrewsbury. (See Shropshire.)

HILTON GRAVEL LTD., Cheadle, Staffs. (Tel.: Tean 241.) Also at Longton, Stoke-on-Trent. (Tel.: Longton 32196) and Stretton, Burton-on-Trent. (Tel.: Burton 6061.)

CONTRACTORS' GUIDE TO AGGREGATES

STAFFORDSHIRE

HULLAND GRAVEL CO., LTD., Cheddle, Stoke-on-Trent. Office: Cheddle 2374. Pit: 2119 and 2195. Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

RUGELEY GRAVEL CO., LTD., Rugeley Quarries, Rugeley, Staffs. (Tel.: Rugeley 2512.) Entirely mineral plant. Sand classifiers. Finest aggregates to B.S.S. Large output.

SALISBURY AND WOOD, LTD., Matlock. (Tel. 272/273.) (For details, see Derbyshire.)

SHIRE OAK GRAVELS, LTD., Lichfield Road, Walsall Wood, Staffs. Washed crushed gravel and washed sand. (Tel.: Brownhills 3253.)

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/273.) Pit sand, concrete sand, aggregate, gravel, washed and crushed gravel. Hardcore, clinkers, ashes and hoggin.

TRENTON GRAVEL CO., LTD., Lordship Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity 2,000 tons per day.

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 360.) Graded limestone for all purposes. Ground limestone.

WINDMILL SAND AND GRAVEL QUARRIES, LTD., Cannock Road, Wolverhampton. (Tel. 31108.) Concrete aggregates, plastering, building and asphalt sand. All to B.S.S.

SUFFOLK

ALRESFORD SAND AND BALLAST CO., LTD., Alresford Creek, near Colchester, Essex. (Tel.: Wivenhoe 341/494.) Suffolk area pits at Bures and Stoke-by-Nayland. All grades washed aggregate sand; also hoggin.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

DICKERSON, M. (CONTRACTORS), LTD., Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) (See Cambs.)

HALF AND CO., LTD., West End Road, Ipswich. (Tel.: Ipswich 5553/4.) Pits at Kessgrave and Homersfield, near Harleston. Gravel aggregates, concreting, plastering and building sand.

MACLAREN BROS. (KENNETT), LTD., Station Road, Kennett, Camb. (Kentford 333/4.) (See Camb.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) Convey Weston 12 and Halstead 23/24. Pits at Stowes, Kettsishall, near Thetford, and Gosfield, near Halstead.

THORPE GRAVEL PITS, LTD., Harvey Lane, Norwich. (Tel.: Norwich 3324/4.) (See Norfolk.)

WEBB, G. CAMBRIDGE, 35 Magrath Av., Cambridge. (Tel.: 59966, 53969, 50353 (night).) (See Camb.)

SURREY

COFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks. (Tel.: 1026/7.) (See Berkshire.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: Hampstead 8048/8.) For all road aggregates, kerbs, setts. (See London.)

EASTWOODS SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Alongside Sand and Ballast Pit, Thorpe, nr. Egham. (Tel.: Egham 3121.) Runfold Sand and Ballast Pit, Runfold, nr. Farnham, Surrey. (Tel.: Runfold 2020.) Producers and distributors of all grades of washed aggregates.

HALL AND CO., LTD., Victoria Wharf, Croydon. (Tel.: Croydon 4444.) Other main depots at Coulsdon, Epsom, Mitcham, Oxted, Purley, Redhill, Tadworth and Woking. Pits at Send and Redhill. Gravel aggregates, concreting, plastering and building sand. Surecrete precision-mixed concrete.

HARRIS, M. P., AND CO., LTD., Kingston Road, Leatherhead, Surrey. (Tel.: 3497.) (See Sussex.)

JAMES AND CO., LTD., 2C Buckingham Avenue, Slough. Sand, aggregates, hardcore, ballast, buldozing & bulk excavation. (Tel.: Slough 20561/2/3.)

LONDON BALLAST CO., LTD., (Tel.: Paddington 5041.) 55A Porchester Terrace North, Paddington, W.2.

SURREY

MARCO (AGGREGATES), LTD., Pit: Norlands Lane, Thorpe, near Egham. (Tel.: Chertsey 3407.) Producers and distributors of high grade washed sand, shingle, ballast, etc.

MARCO (CROYDON), LTD., Hampton Road, West Croydon. (Tel.: THDOrnton Heath 4236/7/8.) All building and road aggregates.

TWICKENHAM GRAVEL CO., LTD., Government Road, Ash Vale. (Tel.: 2349.)

WELLS, A. L. AND SON, LTD., Builders' Merchants, Garlands Road, Leatherhead. (Tel. 3018/9.) Sand aggregates, hardcore, ashes, cement. Clinker block manufacturers.

WINTON, WM. R., LTD., Send, Woking. (Tel.: Ripley 2454/5.) All grades sand, shingle, ballast, hoggin and ashes. Clinker block manufacturers.

SUSSEX

AVANN, F., Cavendish Avenue, Eastbourne. (Tel. 4989/70.) Washed and graded ballast, sand, bricks, breeze and concrete blocks, hardcore, clinker, tarmac, etc., supplied.

HALL AND CO., LTD., 16 Chapel Road, Worthing. (Tel.: Worthing 7840.) Other main depots at Bexhill, Bognor, Crowborough, East Grinstead, Eastbourne, Horsham, Hove and Seaford. Pits at Westgate, Chichester, Arundel, Chichester, Rye Harbour, Midhurst, Shoreham and Portslade. Gravel aggregates, concreting, plastering and building sand. Surecrete precision-mixed concrete.

HARRIS, M. P., AND CO., LTD., West Station Goods Yard, Bexhill. (Tel. 61.) Cavendish Place, Eastbourne 3801.) Dismalton Road, Worthing (Tel. 8822/2); Whitbread Lane, Northiam (Tel. 2211); Station Goods Yard, Haywards Heath (Tel. 1750); Crawley Road, Horsham (Tel. 3366); The Hornet, Chichester (Tel. 4181). All grades aggregates, hardcore, clinker, ashes, etc.

WRIGHT, C. AND SONS (BTION), LTD., 19 Bristol Gardens, Brighton. (Tel.: Brighton 63357 and 62406.) All-in ballast, washed and crushed shingle, sand, ashes, hardcore, chalk, bricks, etc.

WARWICKSHIRE

BALLIDON QUARRIES, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S. all sizes, coated limestone to B.S. 802 and 1621, and wet mix; large output reliable deliveries.

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire)

HALL AND CO., LTD., 188 Lichfield Road, Four Oaks, Sutton Coldfield. (Tel.: Four Oaks 3561.) Gravel aggregates, concreting, plastering, building sand.

JUDINS, LTD., Granite Quarries, Tunstall Hill, Nuneaton. (Tel.: Nuneaton 3411—10 lines.) All sizes washed granite aggregate, tarmac and bituminous macadam. Slab mix a specialty.

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SHIRE OAK GRAVELS, LTD., (See Staffordshire.)

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) (For details, see Staffs.)

WESTMORLAND

BROOMBYS, LTD., Sandside, Minthorpe, Westmorland. (Tel.: Minthorpe 3251/2.) All grades washed crushed gravel sand, limestone, granite chippings, pitching, tarmac, rockery stone, etc.

ESK MANUFACTURING CO., LTD., Carlisle. (Tel.: Carlisle 2-4941.) (For details, see Cumberland.)

WILTSHIRE

BULL BROS. S. AND L., LTD., 126A High Street, Winchester. (Tel.: 2264.) (See Hampshire.)

COKE, T. F. (CHELTENHAM), LTD., 267 Gloucester Road, Cheltenham. (Tel.: 4717/4874.) (See Glos.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMPSTEAD 8048/8.) For all road aggregates, kerbs, setts. (See London.)

WILTSHIRE

FLOYD AGAR AND CO., LTD., Sherston, Wiltshire. (Tel.: Sherston 237.) Finest quality Cotswold building stone and walling stone for sale; also hardcore and quarry waste for road making delivered or carried by keen prices.

MOREY (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggin, path gravel.

TAYMAC, LTD., Wootton Bassett, near Swindon, Wiltshire. (Tel.: Wootton Bassett 391—5 lines.) Cotswold stone, hardcore, washed and graded aggregates, building sand.

WORCESTERSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S. all sizes, coated limestone to B.S. 802 and 1621, and wet mix; large output reliable deliveries.

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

CLEE HILL TRANSPORT AND ROLLING CO., LTD., Ludlow, Salop. (Cleehillstone 284.) (See Shrops.)

DUNNING AND SON, LTD., (See Shropshire.)

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kington. (Tel.: 421.) (See Herefordshire.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

YORKSHIRE

AZILEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sand.

DENIFF, ALAN S., LTD., Kiveton Park, nr. Sheffield. (Tel.: Kiveton 446/7/8.) Truck-mixed and pre-mixed concrete, washed and crushed gravel, concreting sand, bldg. sand, crushed and graded stone.

GLEN QUARRIES, LTD., Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building sand, plastering sand and crushed gravel could be delivered ex quarry or delivered.

HOVERINGHAM GRANITE CO., LTD., Hoveringham, Nottingham. (Tel.: London 311—15 lines.) (For details, see Nottinghamshire.)

NORTH NOTTS. GRAVEL CO., LTD., Bellmores, Retford, Notts. (Tel.: Retford 2219—3 lines.) Concrete aggregates and sands, quartzite chippings, building sands. Quarries at Bellmores and Lound, near Retford and Worksop. Truck-mixed concrete plants at Retford, Notts., Ossett, Yorks., and Wakefield, Yorkshire.

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 2273.) (For details, see Derbyshire.)

STANLEY FERRY GRAVEL CO., LTD., Norwich Union Building, City Square, Leeds 1. (Tel.: Leeds 26361.) Washed, crushed and natural graded sand and gravel. Supplies to specification, large daily production. Centre of Yorks. West Riding market. Pit: Wakefield.

WEBBECK SAND AND GRAVEL CO., LTD., Parkhill, Wakefield. (Wakefield 4454.) Washed sand and gravel.

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THE INDEX TO DISPLAYED ADVERTISEMENTS WILL BE FOUND ON PAGE 448

January 26 1961

THE CONTRACT JOURNAL



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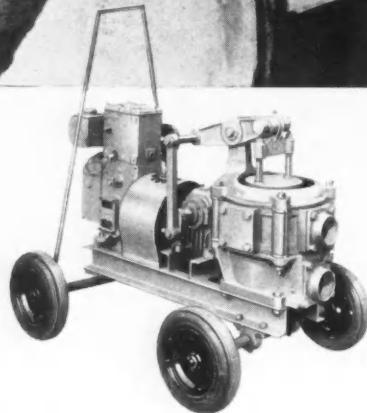
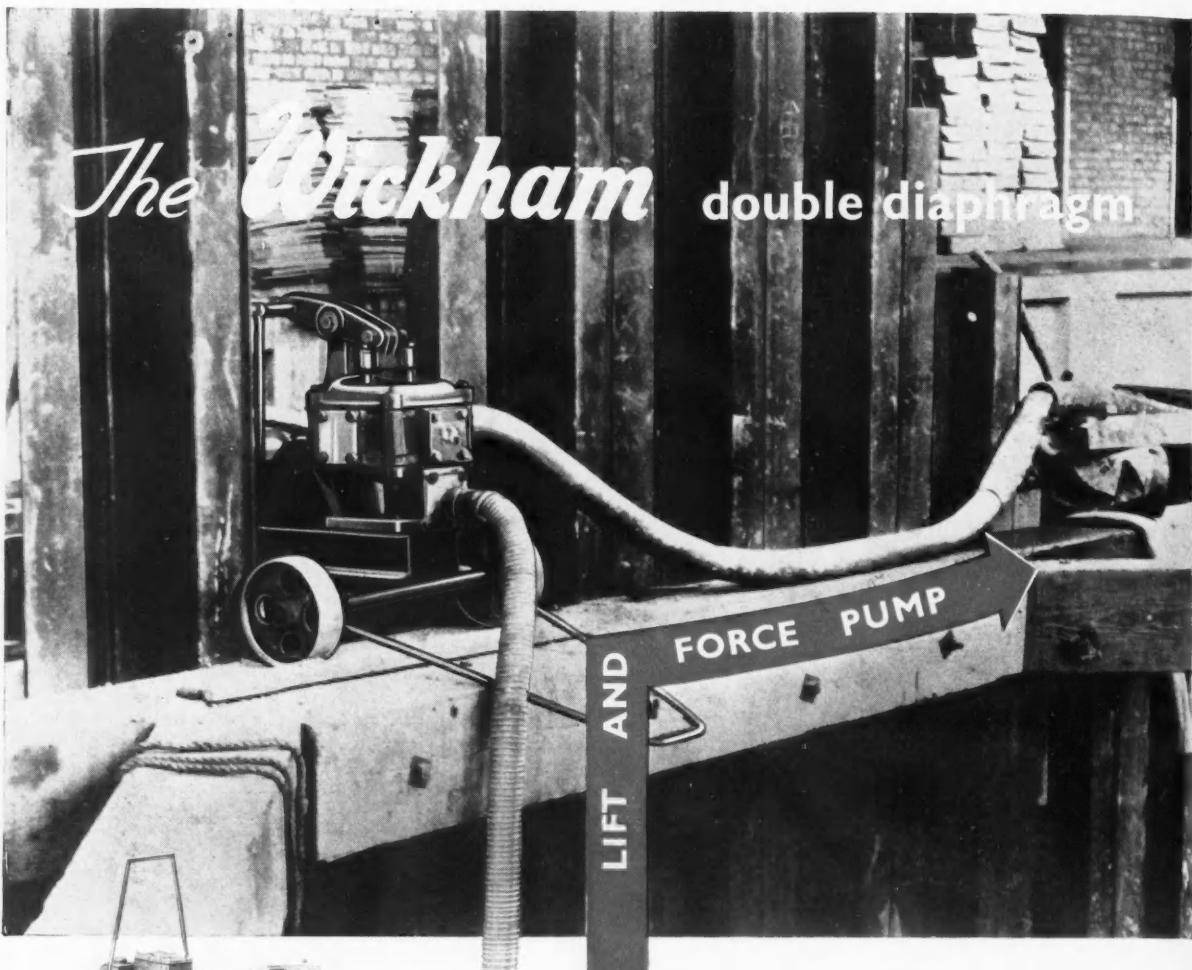
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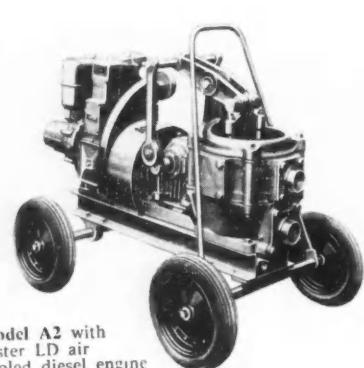
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